Nurse Use of Teach Back Technique in Care Provider Instruction

DNP Scholarly Project

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By

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Abstract

Communication between care providers and caregivers is an essential and critical component to quality and safety in patient care and outcomes. Many individuals find that understanding health information is a challenge. Individual factors such as literacy skills, health knowledge, culture and experience contribute to the challenge. Health care system issues such as the knowledge, skills and experience of health professionals, and the level of complexity and novelty of medical terms and technical language, also contribute to the challenge.

Approaches to better align caregiver practices with the public's abilities are required when communicating health information. Teach back technique is shown to improve communication, comprehension, and outcomes (HHS, Agency for Healthcare Research and Quality [AHRQ] 2011).

The purpose of this project was to use best practice to implement an education program for nurses on effective communication with patients and families with a focus on teach back technique and to include rationale to motivate change in practice. The rationale was the prevalence of health literacy and the effect health literacy has on health outcomes.

The intervention demonstrated increased use of teach back technique at discharge instruction by 12% over a five week post intervention interval. The project represents a beginning in spreading the use of teach back technique and understanding the prevalence and impact of health illiteracy amongst care providers in an academic, pediatric healthcare system.

Chapter One: Nature of the Project

Introduction

Nearly one-third of the United States (U.S.) population struggles with limited to marginal health literacy in relation to the demands of twenty-first century life (Institute of Medicine [IOM], 2004, p. 60). Health literacy is defined as "the degree to which individuals have the capacity to obtain, process, and understand basic health information and services needed to make appropriate health decisions (U.S. Department of Health and Human Services [HHS], Centers for Disease Control [CDC], 2000; IOM, 2004). Patients with low literacy are 1.5 to 3 times more likely to experience poor health outcomes (DeWalt, Berkman, Sheridan, Lohr, & Pignone, 2004; Dewalt & Hink, 2009); nearly one-third of nursing professionals are unaware of the issues of health literacy, including the impact inadequate health literacy has on health outcomes (Macabasco-O'Connell & Fry-Bowers, 2011).

Teach back technique in care provider instruction is an evidence-based action where the healthcare provider first teaches a health-related topic followed by asking the patient/family to teach back or repeat back the information taught, repeating the cycle as necessary until understanding of the topic is accomplished. Teach back technique is shown to improve communication, comprehension, and outcomes (HHS, Agency for Healthcare Research and Quality [AHRQ] 2011). Despite the effectiveness of teach back technique to promote patient understanding, fewer than 40% of health care providers' use teach back technique when educating patients (Dickens & Piano, 2013; Schwartzberg, Cowett, VanGeest, & Wolf, 2007).

Purpose

The purpose of this project was to use best practice to implement an education program for nurses on effective communication with patients/families with a focus on teach back technique and to include rationale to motivate change in practice. The rationale was; the low prevalence of health literacy, the effect health illiteracy has on health outcomes, and how nurses' communication could impact health outcomes. Interest in the project was partly generated by a 2014 organizational strategic quality initiative to reduce 7-day unplanned hospital readmissions. Hospital quality leaders requested nurses incorporate teach back technique as a method of education when providing patient/family discharge instructions. Evidence on the effectiveness of teach back technique was not presented to the nursing staff and adoption of the technique remained low, with use of the technique documented in less than 32% of hospital discharges.

Problem

Health literacy is a challenging, multi-faceted issue, but two major contributing factors are (a) nearly one-third of nursing professionals' are unaware of the issues of low health literacy including the impact inadequate health literacy has on health outcomes (Macabasco-O'Connell & Fry-Bowers, 2011), and (b) fewer than 40% of health care providers use teach back technique when educating patients (Dickens & Piano, 2013; Schwartzberg et al., 2007).

Health literacy in the U.S. was assessed for the first time in 2003 as a component of the National Assessment of Adult Literacy (NAAL). Unlike self-reported or subjective measures of literacy, the NAAL assessment measured health literacy directly through tasks representing a range of activities that adults were likely to face in their daily lives. The results showed that only 12% of adults demonstrated proficient health literacy, the skills necessary to effectively manage their health. Limited health literacy affects the remaining 88% of the population. (HHS, Office

of Disease Prevention and Health Promotion [ODPHP] 2010, p.8). These results are important for health care providers to know and understand when assessing the information that needs to be understood by patients and the challenges that health illiteracy brings to the patient education situation. For example, a person functioning at a basic level of literacy would find it difficult to determine what time to take a prescription medicine, based on information on the prescription drug label that related the timing of the medication to eating. A person functioning at a below basic health literacy level, would find it difficult to circle the date of a medical appointment on a hospital appointment slip, or identify what is permissible to drink before a medical test, based on a set of short instructions (U.S. Department of Education. National Center for Education Statistics [NCES] 2006, p. 6).

Early definitions of health literacy primarily focused on the ability of the individual to apply basic numeracy and reading skills to a concept that was health related. These definitions presented health literacy as a set of individual capacities that allowed the person to acquire and use new information. Recently, there has been a shift towards understanding that health literacy is a product of the individuals' capacities *and* the health literacy related demands and complexities of the health care system (Baker, 2006; HHS, 2003, Obj. 11-2; Parnell, 2014).

An individual may be able to read and write in certain contexts, but struggle to comprehend the unfamiliar vocabulary and concepts found in health related materials or instructions (NCES, 2005). Even people with good literacy skills find that understanding healthcare information is a challenge. They often do not understand medical vocabulary and the basic concepts in health and medicine, such as how the body works or how to navigate the healthcare system (Wolf, Gazmararian, & Baker, 2007; Wolf, Gazmararian, & Baker, 2005).

Research shows that clear communication practices and removing literacy related barriers improve care for all patients regardless of their level of health literacy (Dewalt et al., 2010; Kessels, 2003; Schillinger et al. 2003).

Health care system issues also impact health literacy including; the knowledge, skills and experience of health professionals, the level of complexity and novelty of medical terms and technical language, information dissemination channels, and complicated bureaucratic processes (CDC, 2014; Dewalt et al., 2010). To address these barriers and provide better alignment between provider practices and the individual's skills and abilities specific approaches when communicating health information are required.

Significance of the Study in Nursing and Healthcare

Limited health literacy compounds communication challenges between providers and patients. Studies show that those with limited health literacy are less likely to seek health information from print resources (Koo, Krass, & Aslani, 2006), ask questions during a medical encounter (Katz, Jacobson, Veledar, & Kripalani, 2007), and understand medical terminology (Schillinger et al., 2003). Health literacy experts suggest that health care providers can improve communication with patients with limited health literacy by using techniques such as; creating a shame-free learning environment, using drawings or pictures, speaking slowly, using plain, non-medical language, limiting the amount of information discussed at one time and checking for comprehension using teach back technique (Berkman et al., 2011; Schillinger et al., 2003). Yet, the most common self-reported techniques used by health care professionals to enhance communication with patients with limited health literacy were; using simple language (94.7%), handing out printed materials (70.3%), and speaking more slowly (67.3%), reflecting that many

of the recommended strategies are not routinely incorporated into practice (Schwartzberg et al. 2007).

Other studies found that regardless of health literacy level, patients struggle with remembering and understanding health information. "Forty to eighty percent of medical information patients receive is forgotten immediately" (Kessels, 2003, p. 219) and nearly half of medical information retained is incorrect (AHRQ, 2010, p. 36). Research supports and health literacy experts now recommend a universal precautions approach to health literacy (AHRQ, 2010; Dewalt et al., 2010; Kessels, 2003; Schillinger et al, 2003). A universal precautions approach refers to taking specific actions that minimize risk for everyone when it is unclear which patients may be affected. In the case of health literacy universal precautions, the registered nurse (RN) would assure that effective communication techniques are provided to promote better understanding for all patients, not just those the RN perceives as needing extra assistance. A universal precautions approach to health literacy addresses the evidence that health literacy is not a trait; it is a state of mind and can change depending on the context of the situation.

An effective technique to promote better understanding for all patients is the "teach back" method, also known as the "show me" method or "closing the loop" (Brown, Mack, Guzzetta & Tefera, 2014; Fink, et al., 2010). Teach back technique puts the burden of effective communication on the provider, by requiring the provider to explain to the patient information they need to apply in a manner that the patient understands. Patient understanding is confirmed when they accurately explain the information back to the provider in their own words. Teach back technique is not a test of the patient's knowledge: it is a test of how well the provider explained the information. Despite the effectiveness of teach back technique to promote patient

understanding, fewer than 40% of health care providers' use teach back technique when educating patients (Dickens & Piano, 2013; Schwartzberg et al., 2007).

DNP Essentials to Guide Scholarly Work

The American Association of the Colleges of Nursing (AACN) has developed eight essentials to guide doctorate of nursing practice (DNP) curriculum in the integration and application of scholarly work. Three of those essentials pertinent to this scholarly project are; scientific underpinnings for practice, organizational and systems leadership for quality improvement and systems thinking, and scholarship methods for evidence-based practice (Chism, 2010). An essential for future consideration is the interprofessional collaboration for improving patient and population health outcomes (Chism, 2010). The prevalence of health illiteracy and its effect on health outcomes, combined with the insufficient use of techniques to improve communication and comprehension with patients, indicate the need for health provider education on the topics and support for incorporating new techniques into daily practice. Chism notes that the DNP graduate has the ability to develop, implement and evaluate healthcare delivery approaches to meet the current and future needs of patient populations and that the DNP graduate should act as a consultant when implementing evidence-based change in practice (Chism, 2010). A focus on the consistent and routine use of effective communication techniques, with integrated support from the electronic medical record documentation platform, will support effective communication and health outcomes for providers and patients.

Project Objective:

The scholarly project objective was to incorporate compelling evidence why the current patient/family education methods are not adequate, as a stimulus for change in practice; and, to

educate nurses on evidence-based methods to use when teaching patients and families to enhance patient and family comprehension.

Based on the project objective, questions were formulated following the PICOT structure (population, intervention, comparison, outcome, time) to guide the project scope and evidence to support the change (Melnyk & Fineout-Overholt, 2011). The PICOT questions were:

1. In patients (P), how does teach back technique (I) compared to other communication strategies (C) effect health understanding and/or outcomes (O)?
2. Are patients/caregivers (P) who have low health literacy (I) compared with those without low health literacy (C) at increased risk for poorer health outcomes (O)?

Chapter Two: Review of the Literature

Theoretical Framework

Theories consist of proposed causal linkages among a set of concepts believed to be related to a particular concern (Christenbery, 2011). Theory organizes nursing knowledge and offers a systematic way to explain or describe nursing practice. Nursing theory provides the framework for scientific research and practice required to examine the effectiveness of interventions. When theory is used to guide care, nurses achieve higher quality in care, while elevating nursing's professional standards, accountability and autonomy (Zaccagnini & White, 2011). Theories in nursing provide the base from which nurses seek to understand patients and their health problems, and from which the nurse plans interventions to help the patient.

The Health Literate Care Model

The Health Literate Care Model, as seen in Figure 1, was the primary theory used to guide the development of this DNP scholarly project. The Health Literate Care Model incorporates health literacy themes and tools into the evidence-based framework of the Care Model. The Care Model was first proposed in 1996 by Wagner, Austin and Van Korf, as the Chronic Care Model to promote the delivery of safe, effective, and collaborative care to patients. Over time, patient-centeredness, timeliness, and preventive care were incorporated into the Chronic Care Model. As a result, it is now simply called the Care Model (Barr, et al., 2003).

The Health Literate Care Model was proposed in 2007 by Koh, Brach, Harris and Parchman to incorporate health literacy strategies into the Care Model to improve patients' understanding of and engagement in health care. The elements of the Health Literate Care Model

support a more integrated organizational environment that nurtures and fosters informed patient engagement (Koh, Brach, Harris, & Parchman, 2007, p. 359-360).

Patient and Family Engagement

The Conceptual Model of Patient and Family Engagement, as seen in Figure 2, was a second theory used to guide the development of this DNP scholarly project. This model recognizes two target audiences in organizational interventions and context, the patient/family and the health care provider. The attributes and characteristics of the individuals interact within the context of organization culture, resources, constraints and facilitators to impact outcomes. Anticipated outcomes in a patient engagement model include improved communication, improved provider-patient partnerships, improved quality of care, patient safety and outcomes, improved patient experiences of care, improved provider satisfaction, and more efficient use of resources (AHRQ, 2013, p. 15). These anticipated outcomes, as identified by AHRQ, were supported in a systematic review of the literature published by Coulter and Ellins in 2007. Their interest in the effectiveness of strategies to inform, educate and involve patients in their treatment demonstrated a substantial evidence base on which to build strategies to strengthen patient engagement (Coulter & Ellins, 2007). Coulter and Ellins summarize: "because health literacy is central to enhancing involvement of patients in their care, all strategies to strengthen patient engagement should aim to improve health literacy" (Coulter & Ellins, 2007, p. 27).

Patient and family engagement includes the patient and family as active members of the health care team rather than passive recipients of services. Patient centered care is a core element of patient and family engagement that empowers patients and family members with voice, control, choice, skills in self-care, and total transparency. Patient centered care adapts to individual and family circumstances and to differing cultures, beliefs, values, preferences, social

backgrounds, and health literacy levels (Drenkard, 2014). Patient and family engagement requires organizational and individual readiness (Barry & Edgman-Levitan, 2012).

Several organizational components of patient and family engagement exist within the organizational structure where this DNP scholarly project was conducted. Those components include; bedside rounds with active involvement of the patient and family, bedside change of shift report, patient and family activated rapid response teams, family presence during codes and in the trauma room, access to medical records by patient and family, teen and family advisory councils, and family participation in hospital committees, including the governing board (AHRQ, 2013, p. 43).

Related Research

A comprehensive literature search was done using PubMed, CINAHL, and Cochrane for each PICOT question that guided the project. Searches were limited to human studies, reported from 2003-2015 in peer-reviewed journals, and written in English. Relevant studies were analyzed and appraised based on the level and strength of the evidence to answer the clinical questions (Table 1, Literature review table).

Teach Back Technique

Several randomized controlled trials (RCTs) demonstrated the positive effect teach back technique had on increased comprehension as well as adherence to instructions in adults (Brown et al., 2014; Fink et al, 2010; Negarandeh, Mahmoodi, Nokrehdan, Heshmat, & Shakibazadeh, 2013; Press et al., 2012, Schillinger et al., 2003). Evidence that teach back technique was effective in children and adolescents and their parents/caregivers was lacking

Fink and colleagues (2010) studied the effect of teach back technique on patient comprehension when obtaining informed consent, as well as the length of time teach back

technique added to the education session and provider satisfaction. Teach back technique resulted in a positive effect on patient comprehension (p=0.03), and neutral acceptance by the provider (p=0.59) despite teach back technique taking on average, 2.6 minutes longer than the control group (p=0.0001).

Negarandeh, Mahmoodi, Noktehdan, Heshmat, and Shakibazadeh (2013) compared use of teach back technique or use of pictorial image on comprehension and compliance with low health literate, diabetic adults. Results showed that both teach back technique and pictorial image are effective in improving comprehension, medication adherence, and dietary adherence six weeks post intervention (p>0.001).

Press and colleagues (2012) compared the effect of teach back technique versus basic instruction on self-management skills and health care utilization in 80 adults hospitalized with asthma or chronic obstructive pulmonary disease. Specifically, they measured the correct use of a metered dose inhaler following teach back technique. Post-intervention misuse of the inhaler was significantly lower after teach back technique versus basic instruction (12.5 versus 46%, p=0.01). Also, participants with 30 day acute health related events were less common in the group receiving teach back technique versus basic instruction (1 versus 8, p=0.02).

Brown, Mack, Guzzetta and Tefera (2014) studied the effect of teach back technique on 30 day readmission rates, as well as the amount of time teach back technique added to the instruction session. They demonstrated a positive effect of teach back technique on the amount of time spent in education, with a mean duration of education 2 minutes less than the control group, although not reaching statistical significance (p=0.36). The influence of teach back technique on 30 day readmission rates for heart failure patients was inconclusive (p=0.14). In

part, the statistical significance could be influenced by the small sample size of 29 and the short readmission interval of 30 days.

Schillinger and colleagues (2003) examined whether there was an association between teach back technique and patients' glycemic control in 74 patients with diabetes mellitus and low functional health literacy. Patients whose comprehension was assessed with teach back technique were more likely to have hemoglobin A_{1c} levels below the mean (≤8.6%) versus patients who did not (odds ratio 8.96; 95% confidence interval, 1.1-74.9) (p=.02). After multivariate logistic regression, the two variables independently associated with good glycemic control were higher health literacy levels (odds ratio 3.97; 95% confidence interval, 1.09-14.47) (p=.04) and the use of teach back technique (odds ratio 15.15; 95% confidence interval, 2.07-110.78) (p<.01).

Health Literacy

Health literacy was identified as a priority area for national action over a decade ago, in the 2003 IOM report *Health Literacy: A Prescription to End Confusion* (IOM, 2004). The issue continued to ascend as a priority in both the public and private sectors over the following decade (AHRQ, 2010; AHRQ, 2011; National Center for Ethics in Healthcare, 2006; Pfizer, 2003; The Joint Commission [TJC], 2007; TJC, 2010). Several federal policy initiatives from 2010, including *Healthy People 2010* (HHS, 2010), the Patient Protection and Affordable Care Act, the National Action Plan to Improve Health Literacy, and the Plain Writing Act, brought health literacy to the forefront of political agendas (Koh et al., 2013). The political agendas were influenced by the economic foothold limited health literacy has gained among policy makers interested in reducing the percentage of the U.S. economy dominated by expenditures for

medical care. Limited health literacy is estimated to cost the U.S. between $106 and $236 billion dollars annually (Huber, Shapiro II, & Gillaspy, 2012, p. 429) and is directly identified as a contributing factor to the struggles for more effective delivery of health care, improved health outcomes, and reduced cost of health care in the United States (AHRQ, 2011; Berkman et al., 2004; Berkman, Sheridan, Donahue, Halpern, & Crotty, 2011).

A 2011 systematic review of the literature prepared by the Department of Health and Human Services (HHS) reviewed health utilization and outcomes related to levels of health literacy and interventions designed to improve health outcomes for individuals with low health literacy. The review identified that, in adults, low health literacy levels, as measured through various print literacy, numeracy and oral literacy tools, were "consistently associated with increased hospitalizations, greater emergency care use, lower use of mammography, lower receipt of influenza vaccine, poorer ability to demonstrate taking medications appropriately, poorer ability to interpret labels and health messages, and, among seniors, poorer overall health status and higher mortality" (AHRQ, 2011).

Systematic reviews of peer-reviewed literature specific to literacy as it related to child health outcomes in the U.S. found, that when parents had low health literacy, their children often had worse health outcomes. For example, their children missed more school days, had higher rates of hospitalizations and emergency department visits if they were asthmatic and experienced worse glycemic control if they had diabetes (Dewalt & Hink, 2009; Morrison, Myrvik, Brousseau, Hoffman & Stanley, 2012; Sanders, Federico, Klass, Abrams, & Dreyer 2009). A relationship also existed between low caregiver health literacy and health behaviors. Caregivers with limited literacy were more likely to inappropriately dose medications by using spoons, cups and other nonstandard dosing instruments (Yin et al., 2014). They also had trouble understanding

how to dose liquid acetaminophen using a dosing chart, or how to follow instructions correctly when mixing powdered formula (Dewalt & Hink, 2009; Lee, Federico, Perri, Abrams, & Dreyer 2009).

Chapter Three: Methods

Scholarly Project Design

The author used best practices to implement an education program on teach back technique and health literacy for nursing staff. The project utilized a quasi-experimental interrupted time series design (see Appendix A) to evaluate change in pre and post intervention nurse behavior in using teach back technique as a teaching method when providing discharge instruction to patients/families.

Population and Sample

The population of interest for this project is registered nurses (RNs) employed by an academic, pediatric healthcare system located in the Midwest. Nurses on two units were chosen for the study. Both units were selected based upon a lower reported rate of using teach back technique during discharge instruction compared to other nursing units during the time period of January, 2014 through October, 2014 (see Table 2 Description of Study Setting). Institutional Review Board (IRB) approval was obtained at the expedited level by the IRB of Nationwide Children's Hospital prior to commencement of the project (see Appendix B). The project was granted at the expedited level due to its quality improvement design to improve the delivery of healthcare. Nationwide Children's Hospital and The Ohio State University recognize reciprocity on IRB approvals.

Methods

A continuing education program on health literacy and techniques for effective healthcare communication, emphasizing teach back technique, was planned and approved for one contact hour by the American Nurses Credentialing Center's Commission on Accreditation (see

Appendix C: Education Session Objective & Outline and Appendix D: Hello, are you talking to me? Presentation slides). Several evidence based curriculums for health literacy and teach back technique were instrumental in determining education program content, including the AHRQ "Health Literacy Universal Precautions Toolkit", the Institute for Healthcare Improvement (IHI) "Always use teach back", the askme3.org "What can providers do?", the Institute of Medicine (IOM) "Health Literacy: A prescription to end confusion", and the ethics.va.gov "Teach back – A Tool for improving provider patient communication". Additionally, a review of the literature on teaching about health literacy and clear communication revealed effective techniques as identified by Kripalani and Weiss (2006) that were incorporated in the content. They recommend setting the stage by informing learners about the scope of health illiteracy, the health care experiences of patients with low literacy, the association between low literacy and health outcomes, and ending the education session with empowering trainees by teaching them how to communicate more clearly with patients.

Additional principles of adult learning were considered in determining the program content and format. Adult learners, according to Knowles, Holton, and Swanson (2005), are self-directed, experienced, and oriented and motivated to learn. John Keller's ARCS Model of Motivational Design centers the learning process on attention, relevance, confidence, and satisfaction and was used to guide and sequence course content (Gatti-Petito, Lakatos, Bradley, Cook, Haight, & Karl 2013). According to the Keller ARCS model, "attention arouses learner interest and inquiry; relevance relates previous knowledge to learning objectives; confidence builds as learners apply knowledge that is acquired; and satisfaction is achieved with both intrinsic and extrinsic reinforcement of learning" (Knowles et al., 2005, p. 274).

The first aspect of Keller's model is to gain and keep the learner's attention by sparking interest and sustaining curiosity with techniques requiring active participation. This was done in the DNP project by first sharing alarming stories of health outcomes related to low health literacy. The prevalence and implication of low health literacy was then discussed, with participants doing a demonstration exercise simulating the challenges of having difficulty reading. Relevance of the learning objectives was achieved by discussing ways to communicate more effectively with caregivers, with a focus on teach back technique. Finally, through role play in scenarios pertinent to the practice setting, confidence in using teach back technique was built, as learners applied the recently acquired knowledge.

The content was presented as a pilot program in November, 2014 to the nurse educators responsible for unit based nursing education at the project hospital. The purpose of the pilot program was to obtain feedback and recommendations from the nurse educators on the content and delivery methods to consider when introducing the program to all staff nurses. Forty seven RNs attended the pilot presentation. Their recommendations validated the content as important for the staff to know. They also recommended many live sessions, with consistent presenters, and incorporating the scenarios and role play they experienced, when introducing the content to staff nurses (see Appendix E: Continuing Education Evaluation Tool, November 14, 2014).

The project intervention was to present the education program on teach back technique and health literacy to the RN staff on two targeted inpatient units. Fifteen sessions were presented by the DNP student. All sessions were offered during the RNs scheduled work day, based on dates and times suggested by the nurse managers. Participation was voluntary and resulted in fifty-six of the 90 RNs (62%) on the targeted units attending the education sessions.

Instruments

Data regarding the documented method of assessing patient and family understanding during discharge teaching was obtained from the Quality Improvement Services Coordinator (QISC). Data was provided for all options to document patient and family understanding during teaching, including; patient/family questions were answered, teach back was performed, return demonstration was done, understanding was verbalized, an interpreter was used. The only documentation option used for this project however was teach back technique, which became the numerator in analysis. Data on the number of discharges to home or home health care per unit, by week was also provided by the QISC and became the denominator in analysis. Other than identifying unit 1or unit 2, all data was de-identified for any patient or nurse information.

A secondary method of measurement on the effectiveness of the education program was participant evaluation tools. The standard organizational continuing education evaluation tool was used, seeking feedback on; participants meeting learning objectives, teaching effectiveness and subject matter knowledge of the presenter, and participant comments on how the educational activity will change or improve practice.

Validity of the Measurement

The validity of nursing documentation as a measure of performance and behavior change versus direct observation of the technique was considered during project design. The perceived dilemma was the practicality and time involved with direct observation, as compared with the accuracy of nursing documentation to demonstrate a change in practice. A review of the literature was done to appraise how direct observation affects behavior change and if evidence exists to support use of clinical documentation as an accurate measurement of behavior.

Direct Observation

Jamtvedt et al. (2012) published a systematic review of literature which assessed the effects of observation on the practice of healthcare professionals and patient outcomes. Eighty-two comparisons from 49 studies met the inclusion criteria. The conclusion was; audit and feedback leads to small but potentially important improvements in professional practice, depending on baseline performance and how the feedback is provided (Jamtvedt et al., 2012). The effect of using audit and feedback varied widely across the included studies, ranging from little or no effect to substantial effect. The quality of the body of evidence was mixed; however, audit and feedback may be most effective when;

> the health professionals are not performing well to start out with, the person responsible for the audit and feedback is a supervisor or colleague, the feedback is provided more than once and given both verbally and in writing, and the feedback includes clear targets and an action plan (Jamtvedt et al., 2012, p. 3).

Although supportive, this review did not support use of audit and feedback as an effective method to improve clinical practice.

A confounding factor considered with direct observation was concern that the presence of someone collecting evidence, would affect behavior, a phenomenon known as the 'Hawthorne Effect'. The term has come to be understood as the effect on an outcome through being observed or participating in research. "Most clinical trials are unable to quantify the magnitude of the Hawthorne Effect because its' defining features, such as extra attention by researchers and higher levels of clinical surveillance, apply equally to treatment and control arms" in randomized controlled trials (McCarney, Warner, Iliffe, van Haselen, Griffin, & Fisher 2007, p. 2).

Clinical Documentation

Evidence to support use of clinical documentation as a measurement of behavior was reported in a systematic review of quantitative and qualitative studies by Wang, Haily and Yu in 2011. Dimensions of nursing documentation in structure or format, process and content were included in the review of 77 publications. The quality of the body of evidence was mixed; however, Wang and colleagues identified common deficits in nursing documentation in areas such as; psychological and social aspects of care, steps of the nursing process, and specific data in relation to a particular clinical care issue. However, documentation improved with approaches such as electronic health records, standardized documentation systems, and application of specific nursing theories, education, and organizational changes. These identified approaches that support improved documentation were present in the project organization and were included in the design for this scholarly project.

The results of evidence for direct observation versus electronic medical record documentation to measure change in nurse behavior supported the appropriateness of both methods. The method used in this project was the electronic medical record documentation for measurement with consideration to supplement the project with audit and feedback in the future.

Data Analysis

Summary statistics for the variable of interest--teach back performed--were normalized by dividing ‘teach back method used’ by ‘total discharges’ and reported at the unit and combined levels. Five intervals were analyzed: the 5 week 2014 historical interval that matched the 5 week 2015 post-intervention interval, the 5 week intervals preceding and following the pilot and the 5 week intervals preceding and following the intervention. This evidence based education

intervention relied on proportional use of teach back technique as the measurement to address change in pre and post intervention behavior (see Table 3, Data results).

Chapter Four: Findings

Results

Documented use of Teach Back Technique

The documented use of teach back technique to indicate patient or parent understanding of discharge instructions increased collectively by 11.5% from 42% pre-intervention to 48% post-intervention on both units (see Figure 3, Pre-Post Intervention Results, Combined Units). Differences between units were notable, with unit 1 exhibiting a slight decline in the use of teach back technique, from 33% to 32% and unit 2 exhibiting a 17% increase in the documented use of teach back technique, from 53% to 64% (see Figure 4, Pre-Post Intervention Results, Unit 1 and Unit 2).

Analysis of the 2014 historical time interval that matched the 5 week 2015 post-intervention time interval demonstrated significant increase in documented use of teach back technique, from 19% documented use in 2014, to 48% in 2015, with unit 1 increasing from 20% to 32% and unit 2 increasing from 18% to 64% (see Figure 5, Analysis Five Time Intervals, Combined Units and Figure 6, Analysis Five Time Intervals, Unit 1 and Unit 2).

Further analysis of the intervals preceding and following the pilot program, which introduced the education content at a nurse educator's forum in November, 2014, showed a slight increase in the documented use of teach back technique from 38% to 41%.

Participant Evaluations

A secondary method of measurement on effectiveness of the education program was participant program evaluation tools**.** Evaluations from the 56 RN participants reflected that all

participants met the learning objectives and that presenter teaching effectiveness and knowledge of the subject was perceived as excellent (see Appendix F: Continuing Education Evaluation Tool, Unit 1 and Appendix G: Continuing Education Evaluation Tool, Unit 2). Two themes emerged from a qualitative synthesis of staff comments from the evaluation tools; a greater appreciation for the prevalence and impact of low health literacy, and increased understanding of how to communicate more effectively with patients and parents.

Comments demonstrating an increased appreciation for challenges created by health illiteracy, included: "information was eye opening," "I will be more aware of health literacy and not to assume my parents understand everything they are told," and "Very informative information, I learned a lot on literacy and teach back method." Participant comments demonstrating increased understanding of effective communication techniques and intent to change practice included: "Take your time and do one section at a time (chunking). Use plain and simple words. Help me to ask questions (open ended) ask for them to verbal repeat and/or physical demonstrate so that I know they actually understand. Recheck for understanding. Document!," "Teach back would be crucial in practice. Return demonstration is very important," and "To continue to better communicate with patients and their families in a way that results in their satisfaction and promotes confidence to better take care of self/the child."

Discussion

The scholarly project objective was to educate nurses on evidence-based methods to use when teaching patients and families to enhance patient and family comprehension, focusing on teach back technique; and, to incorporate compelling evidence related to why current education methods are not adequate, as a stimulus for change in practice. Health illiteracy became the

stimulus topic to motivate the change in practice and appeared to have been effective based on participant comments such as “very good examples of how to approach teach back in a non-judgmental way” and “nice way to ‘frame’ teach back”. The comments supported that nurses saw connectivity between health literacy and teach back technique. Further evidence that nurses were connecting challenges of health literacy with how they communicated with parents and families was demonstrated in seven other categories of concerns with 26 specific suggestions which nurses voiced during the education sessions (see Appendix H, Participant Suggestions and Concerns). The nursing discussions identified opportunities in areas such as; after visit summary instructions and forms, communicating with foreign language caregivers and interpreters, and medication teaching.

Perhaps because nurses already understood and appreciated challenges of effective healthcare communication, nurses on the selected units were already changing their behavior in use of teach back technique. Units 1 and 2 were chosen for this project based on a ten month overall proportion of use of teach back per unit at 23% and 29% respectively. The ten month overall proportion of use of teach back technique masked the fact that the technique was gradually being adopted by nursing staff throughout 2014 and being used nearly 50% of the time on unit 2 and 30 % of the time on unit 1 at the time of the formal education sessions.

Explanations for this gradual adoption of teach back technique on these units could include that the method had been introduced in May and June of 2014 to two other nursing units at the organization, and use of the technique may have been gradually spreading as a result of nurses floating assignments from unit to unit. Another explanation could be managers sharing unit based quality initiatives which led to staff behavior change. And a third explanation could be that teach back technique was added as a documentation option to the electronic health record

in June, 2014 which resulted in nurses better documenting what they had been doing all along. Regardless of the reason for the gradual adoption of teach back technique, the need to formally train nursing staff to assure they had the knowledge and tools to use the technique well was supported by evidence and was likely to have contributed to the improved rates of utilization.

Finally, observations on overall differences between unit 1 and unit 2 warrant comment. Despite unit 2 having lower attendance at the education sessions than unit 1 (52% compared to 71%), unit 2 had a greater increase in the documented use of teach back technique post intervention with a 17% increase as compared to a 4% decrease for unit 2. A possible explanation for this variation might have been the differences in manager support and engagement. Unit 1 was in transition with nurse educators and the nurse manager did not attend an education session. In contrast, unit 2 had an active nurse educator, and the nurse manager attended an education session and assured that unit based charge nurses and clinical leaders also attended. Separate from manager engagement and support, the differences could also reflect; a more realistic reporting of the use of teach back technique, now that nursing staff understands the full technique, and that simply providing the education session may not be adequate to change behavior for every nurse.

Conclusions

Teach back technique is an approach for care providers and caregivers to share meaning in the moment. When health care providers use communication methods such as teach back technique with patients and parents, communication, comprehension, and outcomes improve. Using this technique encourages and engages patients and families in the learning process, supporting patient and family centered care. Increasing the use of teach back technique when

instructing patients and families is possible by providing education programs that are relevant, and that gain the attention and build confidence in the learner.

This project's educational intervention showed mixed results in improving nurses' use of effective communication methods such as teach back technique when providing discharge instructions. Identifying reasons for the different adoption rates between units was beyond the scope of this project; yet results indicate that consideration towards unit culture may be necessary for future changes in the delivery of nursing care.

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Chapter Five: Summary, Limitations, Implications

Study Summary

Effective healthcare communication techniques such as creating a shame-free learning environment, speaking slowly, using plain, non-medical language, limiting the amount of information discussed at one time and checking for comprehension using teach back technique (Schillinger et al., 2003) benefit everyone, not just those with limited health literacy (AHRQ, 2010; Kessels, 2003; Schillinger et al, 2003). In this study, using best practice to develop and implement an education program on effective healthcare communication incorporating health literacy concepts to influence feelings, was effective in demonstrating the anticipated behavior change to incorporate teach back technique in discharge teaching.

Given the unique study results between unit 1 and unit 2, it is clear that unit culture affects adoption and sustainment of change in practice. Future interventions to spread the use of teach back technique in the organization should be customized to the unit culture, should consider methods such as unit based educators presenting content and reinforcing behavior through audit and feedback and will require engagement of the manager.

Limitations

An underlying limitation to this project is the fact that evidence on the efficacy of teach back technique in pediatric populations is unknown. The project objective to increase nurse use of effective communication techniques with a focus on the teach back method when providing discharge instructions to patients/families was based on evidence instructing adults on their own health care, not the care they would provide to a dependent.

Several additional limitations to this project should also be noted. First, the post-intervention time period of five weeks may not have been long enough to demonstrate sustained change in behavior. Second, the project was limited to two nursing units in a tertiary hospital setting. Third, measuring behavior change based on self- reported electronic health record documentation may not have been a reliable measure of the actual use of teach back technique. Fourth, the project provided no evidence of accuracy in use of teach back technique by the provider. And finally, the project did not evaluate patient outcomes as a result of nurse's use of teach back technique.

Implications for Nursing Practice and to the DNP Essentials

Results of this DNP scholarly project demonstrated early success in changing nurse's behavior to using teach back technique when doing discharge teaching. Future areas of study and application for DNP practitioners could include;

- assuring that teach back technique is used correctly through audit and feedback,
- assuring that the behavior change and use of teach back technique is sustained,
- embedding the teach back technique education content into orientation for future hires,
- providing teach back technique education content to other healthcare providers,
- designing effective methods to provide the teach back technique education content at the unit level,
- measuring change in parent and patient satisfaction with education provided, and
- measuring patient outcomes when teach back technique is utilized compared to when other instruction methods are utilized.

Results of this DNP scholarly project also identified future areas of collaboration between nurse PhDs and DNPs to include; exploring the effectiveness of teach back technique in different age groups, and determining how to measure the effectiveness of the teach back method when used with adults to provide care to a dependent.

These future areas of study and application would call upon the DNP to use concepts and content gained through in-depth study in the DNP curriculum in several essentials;

- Essential I - Scientific underpinnings for practice,
- Essential II – Organizational and systems leadership for quality improvement,
- Essential III – Clinical scholarship and analytical methods,
- Essential VI – Interprofessional collaboration for improving patient outcomes
- Essential VII – Clinical prevention and population health, and
- Essential VIII – Advanced nursing practice (Chism, 2010)

The challenge for nurse leaders in addressing opportunities for clinicians to communicate more effectively with parents and patients is to; create the compelling reason for change, support the adoption of best practices by clinical nurses, ensure consistency in best practices and implementation, establish measurable indicators that can be collected in a reliable manner, and declare expectations to attain and sustain the outcomes.

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Table 1

Evidence Evaluation Table

PICOT: In patients (P), how does teach back technique (I) compared to other communication strategies (C) affect comprehension, adherence and readmissions (O) within 30 days (T).

Citation	Theoretical Framework	Study Design	Characteristics and Setting	Name/Definition of Major Variables	Outcomes Measures	Data Analysis	Findings	Level of Evidence	Appraisal Worth ↑ = positive ↓=negative –=neutral
Negarandeh et al (2013)	TB effect on comprehension & compliance	RCT	Diabetes Clinic in Iran; low health literate adults; 127 participants	IV= TB & PI DV=C, MA, DA	Questionnaire on comprehension, medication and dietary adherence	ANOVA Paired *t* test	TB & PI both effective for C,MA,& DA *P* >0.001; and TB & PI were not statistically different	II	TB or PI effect on: ↑C ↑MA ↑DA
Fink et al (2010)	TB effect on pt. comprehension & TB acceptance to provider & time involved with TB	RCT	7 VA Med Ctrs, obtaining surgical informed consent; 575 patients	IV=TB DV=C, PrS, T	*Procedure-specific comprehension questionnaire *time stamps on electronic consent tool *11 item staff questionnaire w/5 point Likert scale	*t* test for C; Wilcoxon test for T; Paired *t* test for PrS	Mean C for TB *P*=0.03; T for TB 2.6 minutes longer than no TB, *P*=0.0001; PrS neutral, *P*=0.59	II	TB effect on: ↑C ↓T –PrS
Press et al(2012)	TB effect on pt. self-management skills, & health care utilization	RCT	80 Hospitalized adults w/asthma or COPD at Univ of Chicago Med Ctr	IV=TB DV=MDIm, 30de	*Observation by trained RA & checklist for MDIm *30day post discharge phone interview to assess 30de	Chi-square or Fisher's exact for MDIm; 2 sample *t* test for 30de	MDIm misuse lower after TB, p=0.01; 30de 8X more common in control grp (40 vs 5%, p=0.02)	II	TB effect on: ↑MDIm ↑30de
Brown et al (2014)	TB effect on 30-day readmissions, & time involved	RCT	Heart failure inpatients in a 926 bed center in DC. Convenience sample of 29.	IV=TB DV=30de, T	*Readmissions to study hospital within 30 days for 30de *Mean duration of education sessions for T	Not defined – research abstract only	30de inconclusive results, 2 intervention and 4 control grp patients readmitted (P=0.14) Mean duration of education 2 minutes less	II	TB effect on: –30de ↑T

RCT=randomized controlled trial; SR = systematic review; DS= descriptive study; IV=independent variable; DV=dependent variable; TB=teach-back; PI=pictorial image; MA=medication adherence; DA=dietary adherence; C=comprehension; PrS=provider satisfaction; T=time; MDIm=metered dose inhaler misuse; 30de=prevalence of 30-day health-related events; DA=device adherence; 30de=30-day health-related event; HL=health literacy; CI=confidence interval; CH=child health; R=readability; K=knowledge; NAAL=National Assessment of Adult Literacy

Citation	Theoretical Framework	Study Design	Characteristics and Setting	Name/Definition of Major Variables	Outcomes Measures	Data Analysis	Findings	Level of Evidence	Appraisal Worth ↑ = positive ↓=negative –=neutral
							in IV group (P=0.36)		
Schillinger et al (2003)	TB effect on HbA1c level when tested 122 days after TB	CT	2 primary care clinics at SF General Hosp Sample size of 74 patients Use of TB assessed by videotape review of the clinic visit	IV=TB DV=HbA1c level	HL assessed by sTOFLHLA Use of TB assessed by review of taped clinic visits HbA1c levels measured 122 days after TB	Multivariate logistic regression	2 variables independently associated w/good glycemic ctrl were higher HL levels(OR, 3.97; 95% CI, 1.09-14.47) (p=.04) and use of TB (OR 15.15; 95% CI, 2.07-110.78)(p<.01)	III	↑ TB effect on HbAlc 122 days after TB session
White et al (2013)	TB effect on retention of self-care educational info and 30 day readmissions	Cohort	276 adults hospitalized w/heart failure Univ. of CA, SFMC	IV=TB DV=recall of educational info 7 days post discharge & 30 day readmissions		X^2 for categorical data, Fisher exact for dichotomous data, Student *t* test to compare quantitative data	TB associated with correctly answered self-care questions p<.001 Nonsignificant reduction in 30 day readmits for all cause (p=.609) but a trend towards significance for readmits for heart failure (p=.15)	IV	↑ TB effect on ability to answer self-care questions -TB effect on 30 day readmissions

PICOT: Are patients/caregivers (P) who have low health literacy (I) compared with those without low health literacy (C) at increased risk for poorer health outcomes (O)?

Paasche-Orlow et al (2005)	Prevalence of limited health literacy in the U.S. as depicted in medical literature	SR	U.S. studies from 1963-2004; 134 articles reviewed, 85 met criteria	Health literacy Age Gender Ethnicity Education level		Weighted ANOVA to compare HL to demographics; Wilcoxon to compare HL	Prevalence of low HL was 26% Prevalence of marginal HL was 20% HL w/o gender	I	↑Low to marginal HL was 46% in U.S. ↓Age of Study

RCT=randomized controlled trial; SR = systematic review; DS= descriptive study; IV=independent variable; DV=dependent variable; TB=teach-back; PI=pictorial image; MA=medication adherence; DA=dietary adherence; C=comprehension; PrS=provider satisfaction; T=time; MDIm=metered dose inhaler misuse; 30de=prevalence of 30-day health-related events; DA=device adherence; 30de=30-day health-related event; HL=health literacy; CI=confidence interval; CH=child health; R=readability; K=knowledge; NAAL=National Assessment of Adult Literacy

Citation	Theoretical Framework	Study Design	Characteristics and Setting	Name/Definition of Major Variables	Outcomes Measures	Data Analysis	Findings	Level of Evidence	Appraisal Worth ↑ = positive ↓=negative –=neutral
						between assessment tools	association (*P*=.23) HL w/education level association (*P*=.02), ethnicity (*P*=.0003) & age (*P*=.004)		
Sanders et al (2009)	Prevalence of low health literacy among adolescents, young adults and child care-givers in the U.S., the readability of common child-health info & the relationship between HL and child health	SR	English language studies published after 1980; 1267 articles reviewed, 215 met criteria	Health literacy Health Info readability Health behaviors		Each study was graded based on 7 factors; 16 studies w/suff strength for HL prev., 6 for R, and 23 for relationship betwn. HL & CH	33% of adol.& young adults had low HL; 5 of 6 studies on R of health info show info written above tenth-grade level; adults w/low HL have 1.2-4X more negative health behaviors & chronically ill children Caregivers w/low HL are twice as likely to use more health services	V	↑substantial prev. of low HL in young adults and caregivers of children ↑increased use of hlth. svcs. r/t low HL
Berkman et al (2011)	Determine whether low HL is related to poorer use of health care & outcomes	SR	English language studies published after 2003; 1012 articles reviewed, 96 relevant good or fair quality studies met criteria	Health literacy Use of health care services Taking medications appropriately Interpreting labels		All studies were observational, primarily cross-sectional. Studies graded by 2 independent revieweras good, fair, poor based on risk of bias	9 studies w/moderate evidence of increased ED use and hospitalization in low HL; 6 studies w/moderate evidence of low skills in taking meds,interpreting labels & health messages in low HL	V	↑use of ED and hospitalizations in low HL ↑ low HL associated with lower ability to demonstrate taking meds correctly & interpreting labels correctly

RCT=randomized controlled trial; SR = systematic review; DS= descriptive study; IV=independent variable; DV=dependent variable; TB=teach-back; PI=pictorial image; MA=medication adherence; DA=dietary adherence; C=comprehension; PrS=provider satisfaction; T=time; MDIm=metered dose inhaler misuse; 30de=prevalence of 30-day health-related events; DA=device adherence; 30de=30-day health-related event; HL=health literacy; CI=confidence interval; CH=child health; R=readability; K=knowledge; NAAL=National Assessment of Adult Literacy

Citation	Theoretical Framework	Study Design	Characteristics and Setting	Name/Definition of Major Variables	Outcomes Measures	Data Analysis	Findings	Level of Evidence	Appraisal Worth ↑ = positive ↓=negative –=neutral
Dewalt & Hink (2009)	Determine if parent and child literacy is related to health outcomes	SR	English language studies published from 1980-2008; 58 articles reviewed, 13 met inclusion criteria	Health literacy Health knowledge Use of healthcare services Health behaviors Health outcomes		Most studies were cross-sectionalor longitudinal. Studies graded by 2 independent reviewer as good, fair, poor based on multiple parameters	8 of 9 studies showed low HL people had less knowledge of health outcomes, behaviors, and services; 2 of 4 studies showed HL related to higher use of health svcs; 8 of 9 studies showed low HL parents & children had worse health behaviors; 3 of 5 studies showed worse health outcomes in children with low HL parents	I	↑ low HL associated w/lower K, C ↑ low HL in parents associated w/higher ED visits and hospitalizations in asthmatic children
Yin et al (2009)	Assess health literacy of US parents & their difficulty in understanding OTC med labels	DS	A 6100 population subset of the 2003 NAAL of >18,000 adults. The nationally represented subset consisted of parents w/children in the household	IV=HL DV=OTC med label understanding	*HL measured by NAAL 28 item questionnaire categorized in 4 levels: below basic, basic, intermediate, proficient. *OTC labels understanding measured by performance on 2 medication related tasks	Rao * Scott's corrected X^2 for complex samples; Wald's X^2 for hypotheses test of HL and category association	11.2% of adults were below basic with HL skills, 17.5% had basic skills 46% of parents unable to perform at least 1 of 2 medication related tasks Parents with below basic HL had 3.4	IV	↑ 28.7 % of adults with basic to low HL skills ↑ 46% parents with low medication task behaviors

RCT=randomized controlled trial; SR = systematic review; DS= descriptive study; IV=independent variable; DV=dependent variable; TB=teach-back; PI=pictorial image; MA=medication adherence; DA=dietary adherence; C=comprehension; PrS=provider satisfaction; T=time; MDIm=metered dose inhaler misuse; 30de=prevalence of 30-day health-related events; DA=device adherence; 30de=30-day health-related event; HL=health literacy; CI=confidence interval; CH=child health; R=readability; K=knowledge; NAAL=National Assessment of Adult Literacy

Citation	Theoretical Framework	Study Design	Characteristics and Setting	Name/Definition of Major Variables	Outcomes Measures	Data Analysis	Findings	Level of Evidence	Appraisal Worth ↑ = positive ↓=negative –=neutral
							OR (95% CI, 1.6-7.4) having difficulty understanding OTC med labels		
Mitchell et al (2012)	Relationship between HL and 30 day hospital reutilization rates	DS	Boston Medical Center Project RED (ReEngineerd Discharge) RED-Lit w/combined 1540 patients; This study used a final sample of 703 from the control arms	IV=HL DV=30 day hospital reutilization	*HL measured by REALM tool *Hospital reutilization includes ED and hospital visits collected through EMR and phone interview after 30 days	Multivariate Poisson regression	20% w/low HL 29% marginal HL 51% adequate HL Low HL patients 1.71X more likely to use ED than adequate HL patients (p<.05) and 1.67X (95% CI 0.98,2.83, p<.06) more likely to be readmitted	IV	↑49% of adults w/low to marginal HL ↑ lower HL associated with ↑30de
Dewalt et al(2007)	Relationship between parental HL and child asthma care measures: ED visits, hospitalization, missed school days	Cohort	Study conducted at 3 outpatient pediatric clinics at the NC Children's Hospital N=150 children 24% of parents had low literacy	IV=HL DV=ED visits, hospitalization, missed school days	*HL measured by REALM tool *	X^2 for categorical data, *t* test for normally distributed continuous data, Wilcoxon rank sum for continuos data w/o normal distribution; Poisson regression	Children of parents with lower health literacy had: *More ED visits [IRR]1.4; 95% CI 0.97-2.0 *more hospitalizations [IRR]4.6; 1.8,12 *More missed days of school [IRR]2.8; 2.3,3.4	IV	↑ lower HL associated with ↑ED visits, hospitalizations & missed days of school
Wolf et al (2007)	Relationship between HL and understanding prescription drug labels	CT	Adult pts at one of 3 primary care clinics in Shreveport LA, Jackson Miss, and Chicago, IL N=395	IV=HL DV=Interpretation of prescription drug labels	*HL measured by REALM tool *Trained RA at each site did a structured cognitive interview on different label	X^2 for bivariate associations, Grounded theory used to classify the errors in 5 domains	Low HL patients had higher rates of misunderstanding compared to marginal or adequate	III	↑ lower HL associated with inability to understand prescription drug labels

RCT=randomized controlled trial; SR = systematic review; DS= descriptive study; IV=independent variable; DV=dependent variable; TB=teach-back; PI=pictorial image; MA=medication adherence; DA=dietary adherence; C=comprehension; PrS=provider satisfaction; T=time; MDIm=metered dose inhaler misuse; 30de=prevalence of 30-day health-related events; DA=device adherence; 30de=30-day health-related event; HL=health literacy; CI=confidence interval; CH=child health; R=readability; K=knowledge; NAAL=National Assessment of Adult Literacy

Citation	Theoretical Framework	Study Design	Characteristics and Setting	Name/Definition of Major Variables	Outcomes Measures	Data Analysis	Findings	Level of Evidence	Appraisal Worth ↑ = positive ↓=negative –=neutral
					dosage instructions on 5 common prescription meds		literacy patients (61% versus 51% versus 38%, p<0.001)		
Dewalt et al (2004)	Review the relationship between HL and health outcomes	SR	44 articles	IV=HL DV=health outcomes	Health outcomes, as defined in the 44 articles	One reviewer completed evidence table, 2nd reviewer checked each entry. Entire study team reconciledifferences	Patients w/lower HL had poorer health outcomes, including knowledge, intermediate disease markers, measures of morbidity, general health status, use of health resources. Patients with low HL were 1.5-3X more likely to experience poor outcomes	I	↑ lower HL associated with poorer health outcomes

RCT=randomized controlled trial; SR = systematic review; DS= descriptive study; IV=independent variable; DV=dependent variable; TB=teach-back; PI=pictorial image; MA=medication adherence; DA=dietary adherence; C=comprehension; PrS=provider satisfaction; T=time; MDIm=metered dose inhaler misuse; 30de=prevalence of 30-day health-related events; DA=device adherence; 30de=30-day health-related event; HL=health literacy; CI=confidence interval; CH=child health; R=readability; K=knowledge; NAAL=National Assessment of Adult Literacy

Table 2

Description of Study Setting

Category	Unit 1	Unit 2
Type of Setting	Inpatient nursing unit with patients on infectious disease service	Inpatient nursing unit with patients on neurosciences or otolaryngology service
Unit bed #	26	30
# RN staff	48	42
# RN at education	34	22
% RN at education	70.8	52.4
# sessions offered	10	10
# sessions held	9	6
Baseline mean of teach back: Jan 2014-Oct 2014	23%	29%

Note: # =number, RN=registered nurse

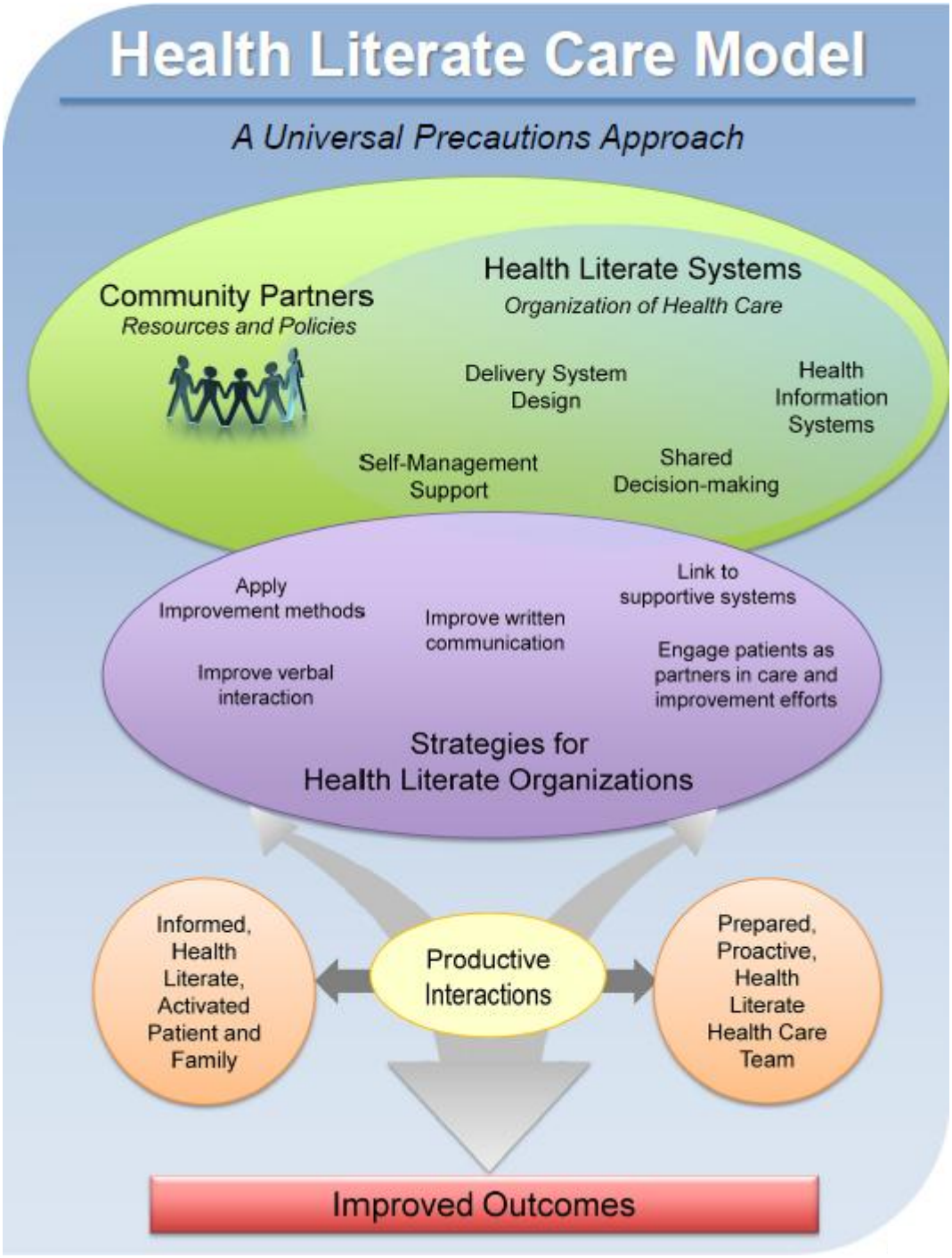
Table 3

Data Results

	Unit 1		Unit 2		Combined Units	
	tb/dc	proportion	tb/dc	proportion	tb/dc	proportion
Five week historical interval						
Feb 9-15,'14	8/58	0.14	7/46	0.15	15/104	0.14
Feb 16-22, '14	14/70	0.20	9/43	0.21	23/113	0.20
Feb 23-Mar 1,'14	11/64	0.17	13/52	0.25	24/117	0.21
Mar 2-8,'14	16/63	0.25	8/53	0.15	24/116	0.21
Mar 9-15,'14	13/60	0.22	8/50	0.16	21/110	0.19
Five week interval pre pilot						
Oct 12-18,'14	21/61	0.34	27/57	0.47	48/118	0.41
Oct 19-25,'14	15/80	0.19	35/55	0.60	48/135	0.36
Oct 26-Nov 1,'14	13/63	0.21	24/50	0.48	37/113	0.33
Nov 2-8,'14	21/67	0.31	34/75	0.45	55/142	0.39
Nov 9-15,'14	24/60	0.40	28/63	0.44	52/123	0.42
Five week interval post pilot						
Nov 16-22,'14	18/57	0.32	39/72	0.54	57/129	0.44
Nov 23-29,'15	17/57	0.30	21/42	0.50	38/99	0.38
Nov30-Dec 6,'14	21/76	0.28	21/48	0.44	42/124	0.34
Dec 7-13,'14	23/64	0.36	41/71	0.58	64/135	0.47
Dec 14-20,'14	16/64	0.25	35/62	0.56	51/126	0.40
Five week interval pre intervention						
Dec 21-27, '14	20/70	0.29	19/37	0.51	39/107	0.36
Dec 28-Jan 3,'15	16/67	0.24	22/47	0.47	38/114	0.33
Jan 4-10, '15	24/61	0.39	32/68	0.47	56/129	0.43
Jan 11-17, '15	18/60	0.30	35/61	0.57	53/121	0.44
Jan 18-24,'15	30/66	0.45	43/74	0.58	73/140	0.52
Five week interval post intervention						
Feb 8-14,'15	23/77	0.30	37/62	0.60	60/139	0.43
Feb 15-21,'15	23/69	0.33	50/76	0.66	73/145	0.50
Feb 22-28,'15	31/79	0.39	54/74	0.73	85/153	0.56
Mar 1-7,'15	16/64	0.31	52/93	0.56	68/157	0.43
Mar 8-14,'15	20/65	0.31	35/53	0.66	55/118	0.47

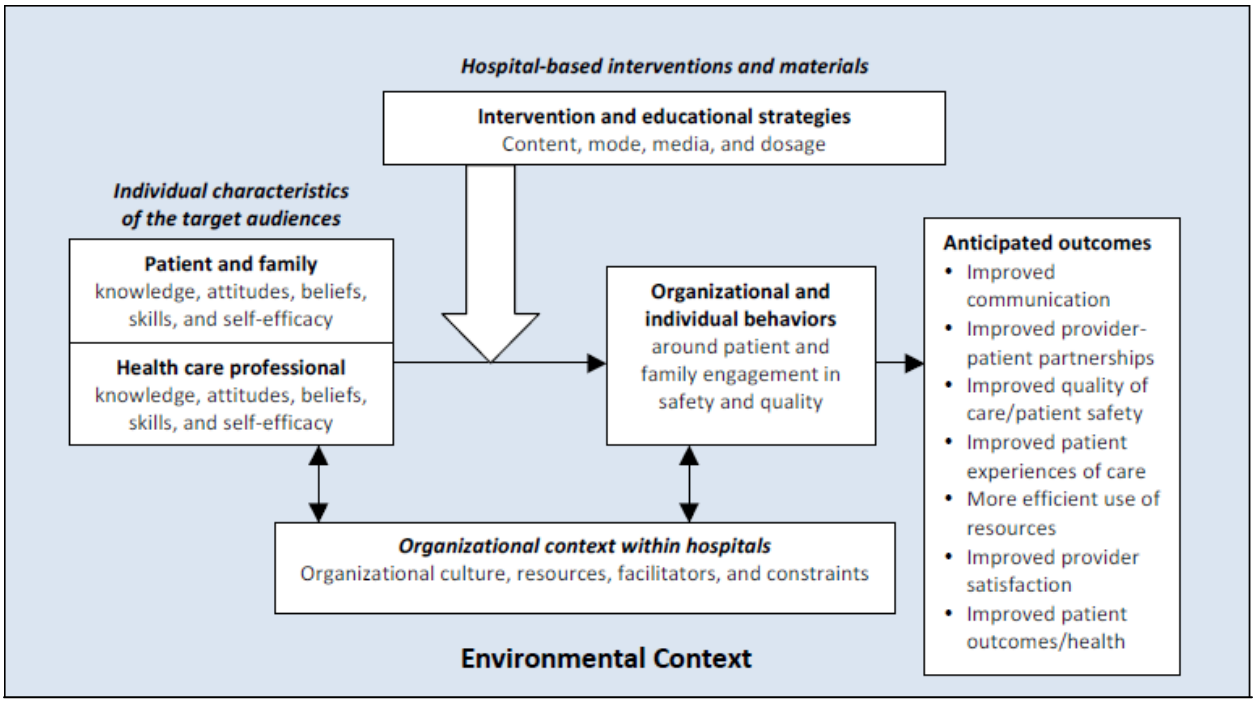
Note: tb = number of times teach back method documented; dc = number of discharged patients

Figure 1: Health Literate Care Model



Source: Koh, H. K., Brach, C., Harris, L. M., & Parchman, M. L. (2013). A proposed 'health literate care model' would constitute a systems approach to improving patients' engagement in care. *Health Affairs (Project Hope), 32*(2), 357-367. doi:10.1377/hlthaff.2012.1205 [doi]

Figure 2: Conceptual Model of Patient and Family Engagement



Source: U.S. Department of Health and Human Services, Agency for Healthcare Research & Quality. (2013). *Guide to Patient and Family Engagement in Hospital Quality and Safety* (Contract HHSA 290-200-600019). p. 15. Retrieved from http://www.ahrq.gov/professionals/systems/hospital/engagingfamilies/index.html

Figure 3: Pre-Post Intervention Results, Combined Units

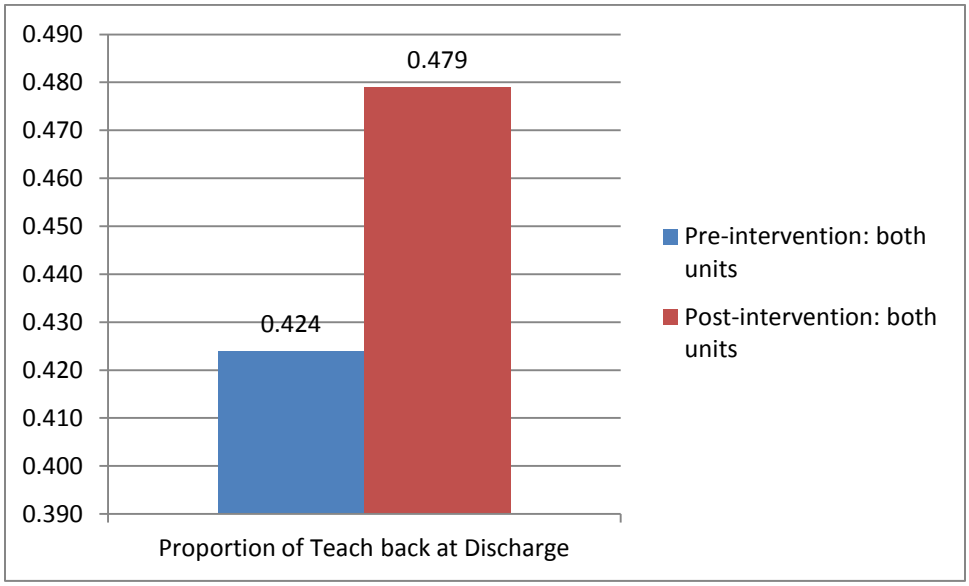
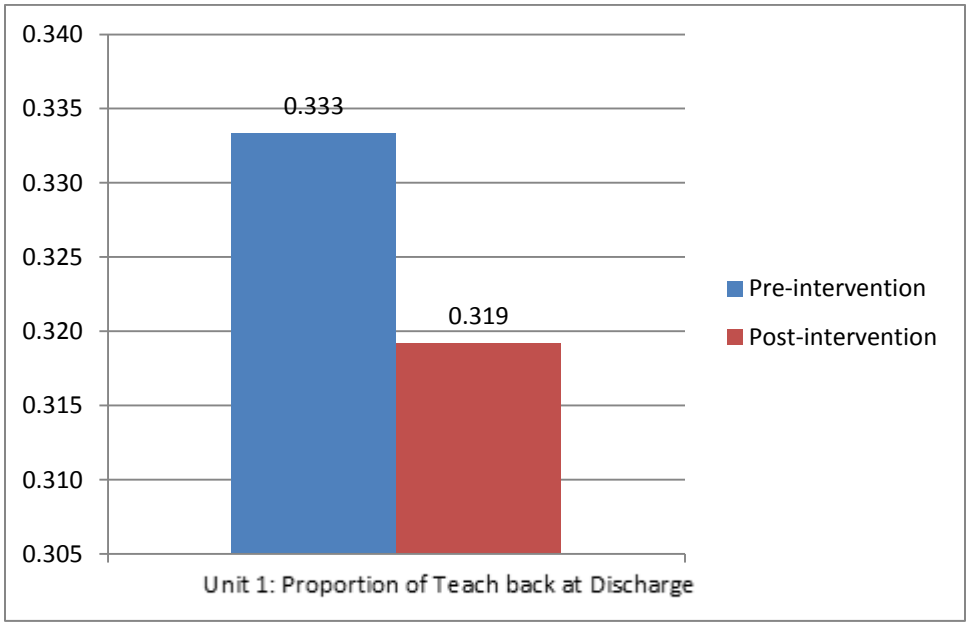


Figure 4: Pre-Post Intervention Results, Unit 1 and Unit 2



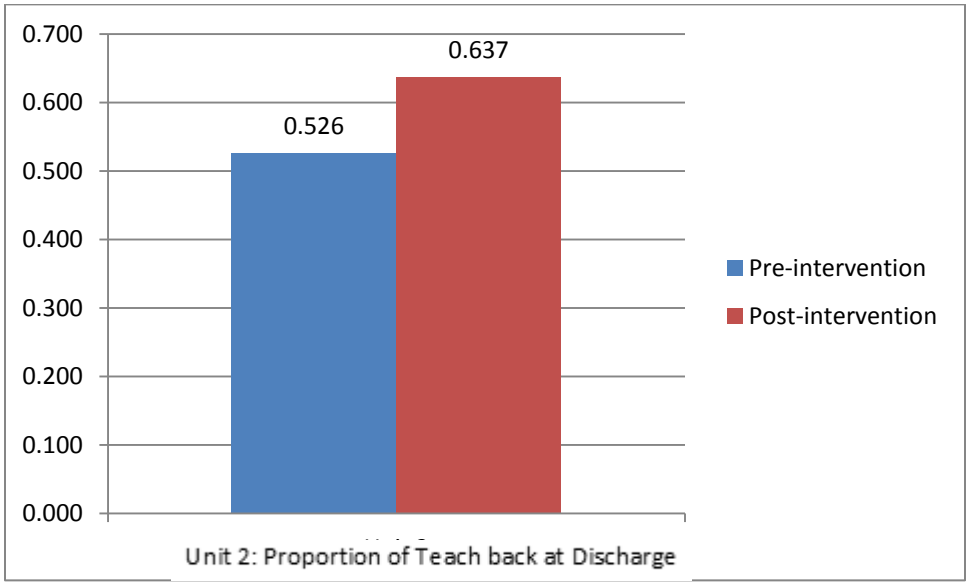


Figure 5: Analysis Five Time Intervals, Combined Units

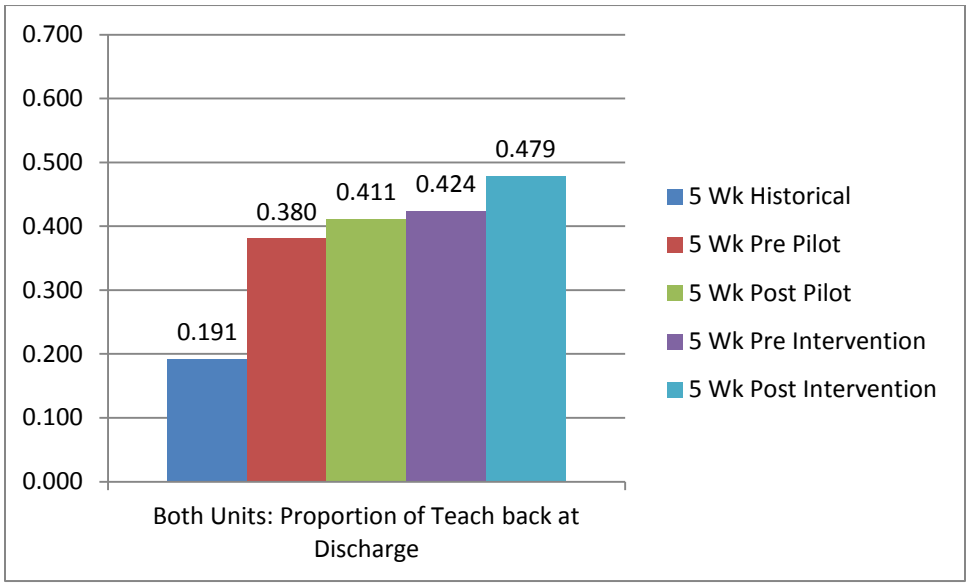
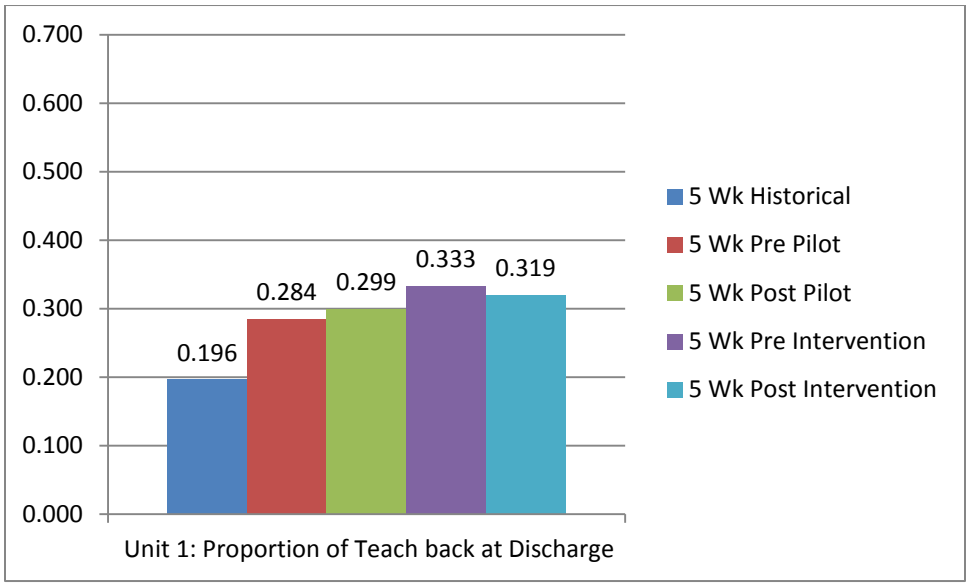
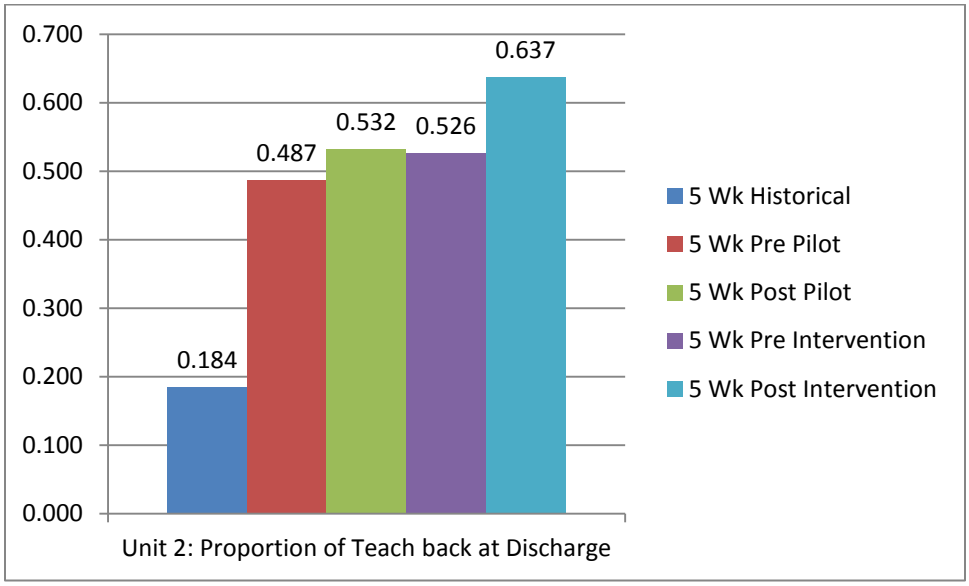


Figure 6: Analysis Five Time Intervals, Unit 1 and Unit 2





Appendix A

Research Design

O1 O2 X1 O3 O4 X2 O5

O1 = historical observations: 2/14-3/14

O2 = observations of teach back technique used at discharge on selected nursing units at a pediatric hospital, for a five week interval, pre-pilot

X1 = Pilot program: provision of an education session on teach back technique and health literacy to unit level nurse educators

O3 = observations of teach back technique used at discharge on selected nursing units at a pediatric hospital, for a five week interval, post-pilot

O4 = observations of teach back technique used at discharge on selected nursing units at a pediatric hospital, for a five week interval, pre-intervention

X2 = Provision of an education sessions on teach back technique and health literacy on two nursing units

O5 = observations of teach back technique used at discharge on selected nursing units at a pediatric hospital, for a five week interval, post-intervention

Appendix B

Institutional Review Board Approval from Nationwide Childrens Hospital

December 30, 2014

Janet Berry
Quality Improvement Services

Study ID: IRB14-00751
Study Name: Implementation of a Training Protocol for Teach-Back Technique

The above referenced protocol has been reviewed by the Nationwide Children's Hospital Institutional Review Board Expedited Committee. Based on the information provided to the IRB, this project is designed to improve the delivery of healthcare or evaluate a healthcare program. This project does not meet the definition of research according to the federal regulations [45 CFR 46.102(d)].

Because of this determination, IRB review is not required and the study application will be withdrawn.

If additional assistance is needed, please do not hesitate to call the IRB office at 614-722-2708

Sincerely,

Karen A. White, Ph.D., Chair
Institutional Review Board

Appendix C

Education Session Objectives and Outline

TITLE: Hello, are you talking to me? **Techniques for Effective Healthcare Communication**

OBJECTIVE 1: The participant will be able to define: a) health literacy, b) its' prevalence in the United States, and c) challenges for a health illiterate person.

Content:

1. Overview of Health Literacy
    a. Definition of literacy vs health literacy
        i. Literacy defined with sample stories
        ii. Factors that affect health literacy
    b. Prevalence of health literacy in the US
        i. Health literacy statistics
        ii. Examples of tasks a health illiterate person finds difficult to perform
        iii. Populations at risk
        iv. Cues of low health literacy
    c. Effect of low health literacy on health outcomes
        i. Literacy and adult health outcomes
        ii. Literacy and child health outcomes
    d. Health literacy related demands of the health care system that contribute to the issue
        i. medical terminology
        ii. demonstration exercise

OBJECTIVE 2: The participant will be able to describe effective patient communication including the teach-back technique.

Content:

2. Effective communication with patients
    a. Spoken and written communication suggestions for effective communication with patients/families
    b. Universal precautions for health literacy supporting use of teach-back technique
    c. Definition and description of Teach-back technique
    d. Examples of teach back statements
    e. Key elements for effective teach-back

OBJECTIVE 3: The participant will be able to apply effective use of teach-back technique.

Content:

3. Teach-back technique: role play
    a. Paired groups to do two role play scenarios per group, with each person taking the turn to be the healthcare provider and the patient/parent
    b. Discuss observations and feedback

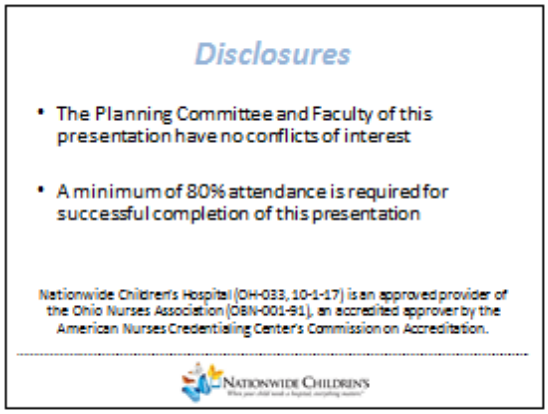
4. Documentation teach back

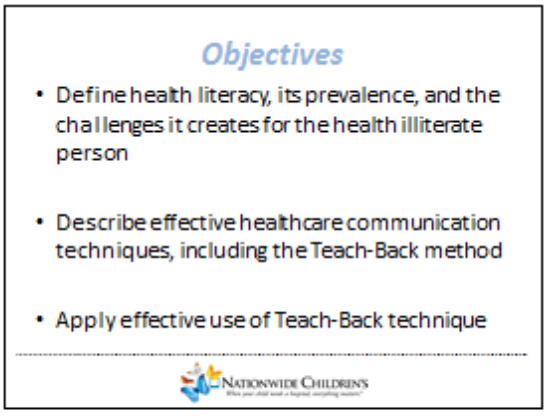
5. Closing video of teach back

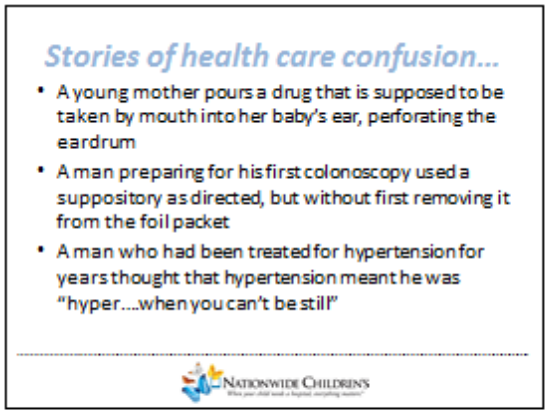
    a. Discuss communication techniques that were done well, and not well

Appendix D

Hello, are you talking to me? Presentation slides







Stories of health care confusion…

- A patient who had been prescribed daily insulin shots to control his diabetes diligently practiced injecting the drug into an orange while in the hospital. It was only after he was readmitted with dangerously high blood sugar readings that doctors discovered he was injecting the insulin into the orange, then eating it.
- Former New York mayor Rudolph Giuliani, thought he was cancer free when his doctor told him several years ago that his prostate biopsy was "positive".

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Health Literacy

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Health Literacy: a Definition

"Health literacy is the degree to which individuals have the capacity to obtain, process, and understand basic health information and services needed to make appropriate health decisions"

U.S. Department of Health and Human Services, Office of Disease Prevention and Health Promotion

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Factors that Affect Health Literacy

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Poor health literacy is a stronger predictor of a person's health than age, income, employment status, education level, and race.

An example

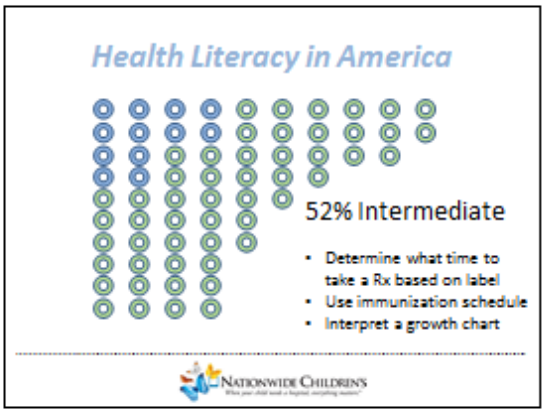
Health Literacy in America

- National Association of Adult Literacy (NAAL)
- Latest data: 2004, n= 19,714
- Scored on 4 levels

Health Literacy in America

12% Proficient

Calculate employee share of health insurance costs for a year, using a table that shows how the employee's monthly cost varies depending on income and family size


Health Literacy in America
52% Intermediate
• Determine what time to take a Rx based on label
• Use immunization schedule
• Interpret a growth chart
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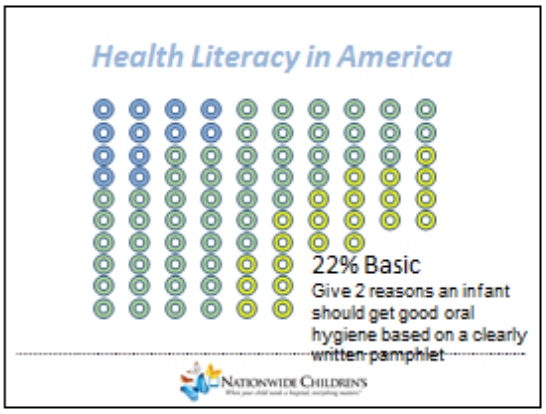
Health Literacy in America
22% Basic
Give 2 reasons an infant should get good oral hygiene based on a clearly written pamphlet
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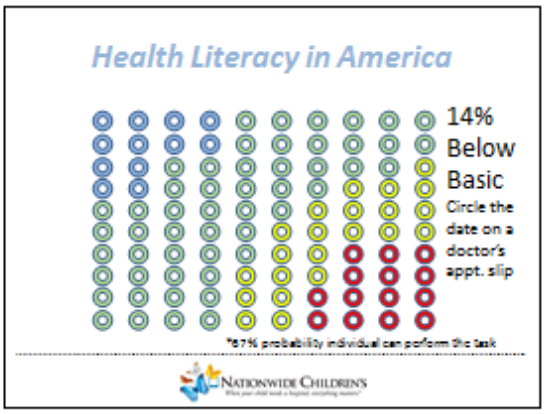
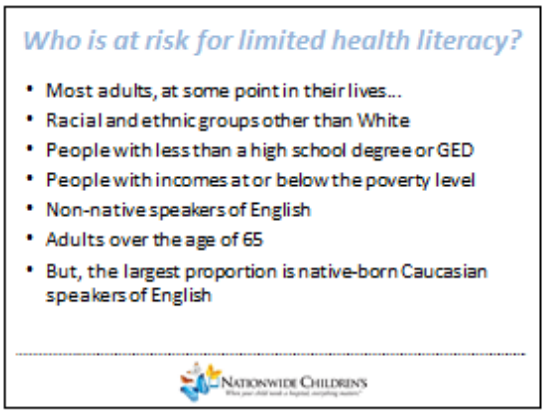

Health Literacy in America
14% Below Basic
Circle the date on a doctor's appt. slip
*67% probability individual can perform the task
Nationwide Children's


Who is at risk for limited health literacy?
• Most adults, at some point in their lives…
• Racial and ethnic groups other than White
• People with less than a high school degree or GED
• People with incomes at or below the poverty level
• Non-native speakers of English
• Adults over the age of 65
• But, the largest proportion is native-born Caucasian speakers of English
Nationwide Children's

Why Care about Literacy?

Some people are not aware they have low literacy skills

- 75% of those reading at a below basic level (5th grade or lower) report they read "well" or "very well"

Others who *are* aware have shame and embarrassment:

- 75% have never told their spouse
- 53% have never told their children
- 20% have never told anyone they have a reading problem

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Cues of Low Literacy

- May pretend they can read
- Excuses: "I forgot my glasses" "Can you read this to me?" or "I'll read it later when I'm home" "I'm tired"
- Seek help only when illness is advanced
- Lack of follow through with tests or appointments
- Seldom ask questions
- Clown around or use humor, or become very quiet and passive, or become angry and demanding
- Have difficulty explaining medical concerns or how to take medicines

Nationwide Children's

Literacy and Adult Health Outcomes

- When adults have low health literacy they:
  - Have more hospitalizations
  - Use emergency care more frequently
  - Use less preventative care such as mammography, and influenza vaccine
  - Have difficulty interpreting medications, labels and health messages
  - Among seniors, have higher mortality

Nationwide Children's

Low Parental Literacy and Child Health Outcomes

- When parents have low health literacy:
  - They have trouble understanding instructions to mix powder formula
  - They have trouble understanding how to dose liquid acetaminophen using a dosing chart
  - Their children are more likely to be inappropriately dosed with medications using spoons, cups, or other non standard dosing instruments
  - Their diabetic children have worse glycemic control

Nationwide Children's

Low Parental Literacy and Pediatric Asthma

Outcome related to Asthma	Likelihood compared to Children of Higher Literacy Parents
Hospitalizations	4.6
Emergency Room Visits	1.4
Missed Days of School	2.8

Nationwide Children's

Literacy & Communication

Individuals with limited health literacy are:

- Less likely to seek health information from print resources
- Less likely to ask questions during a medical encounter
- Less likely to understand medical terminology and jargon

Nationwide Children's

A Demonstration Exercise

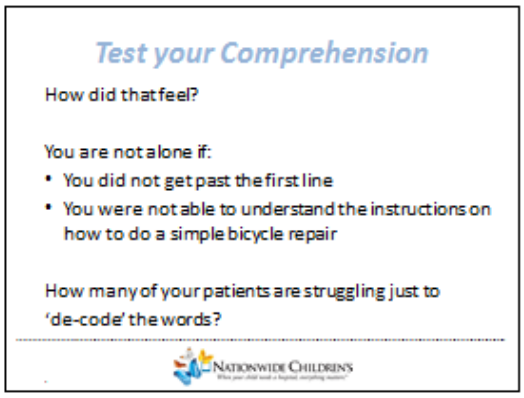
- The following paragraph of instructions simulates what a reader with low literacy sees on the printed page
- Read the paragraph out loud
- You have 15 seconds to read
- Hint: The words are written backward and the first word is 'unscrew'

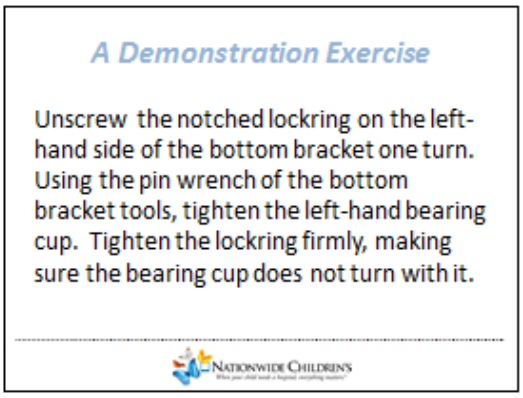
Nationwide Children's

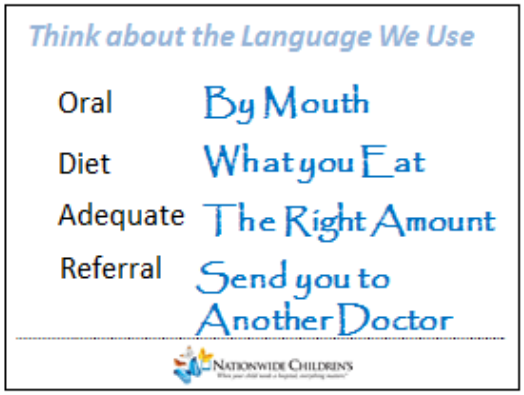
A Demonstration Exercise

Wercsnu eht dehcton gnirkcol no eht dnah-tfel edis fo eht mottob tekcarb eno nrut. Gnisu eht nip hcnerw fo eht mottob tekcarb sloot, nethgit eht dnah-tfel gniraeb puc. Nethgit eht gnirkcol ylmrif, gnikam erus eht gniraeb puc seod ton nrut htiw ti.

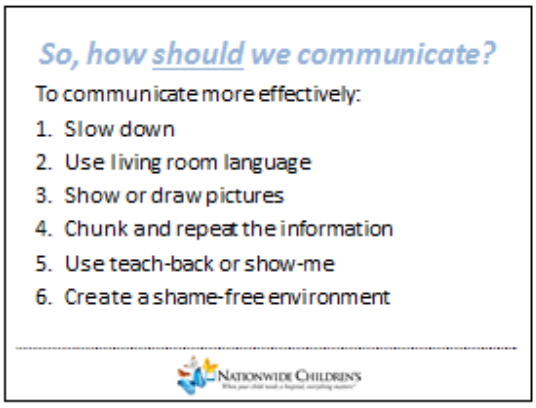
Nationwide Children's

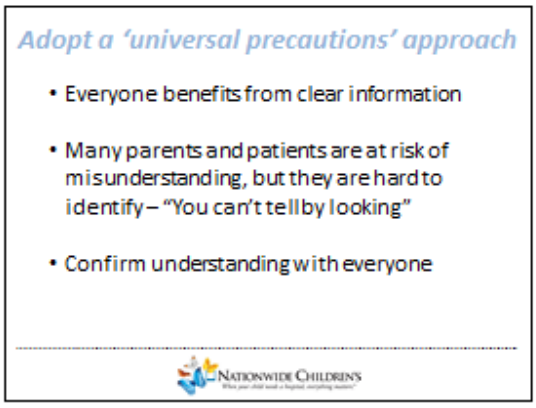

Test your Comprehension
How did that feel?
You are not alone if:
• You did not get past the first line
• You were not able to understand the instructions on how to do a simple bicycle repair
How many of your patients are struggling just to 'de-code' the words?
Nationwide Children's

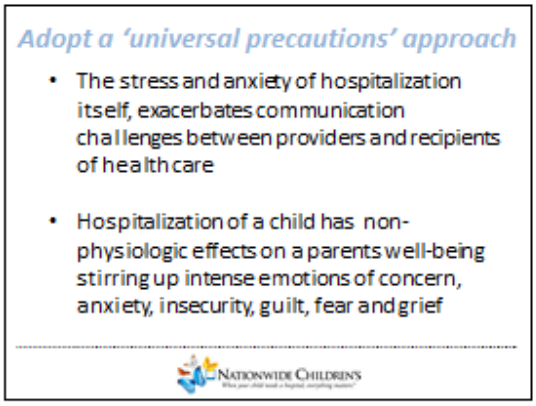

A Demonstration Exercise
Unscrew the notched lockring on the left-hand side of the bottom bracket one turn. Using the pin wrench of the bottom bracket tools, tighten the left-hand bearing cup. Tighten the lockring firmly, making sure the bearing cup does not turn with it.
Nationwide Children's

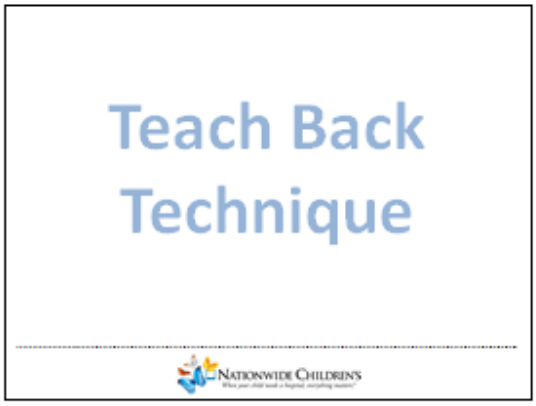

Think about the Language We Use
Oral By Mouth
Diet What you Eat
Adequate The Right Amount
Referral Send you to Another Doctor
Nationwide Children's

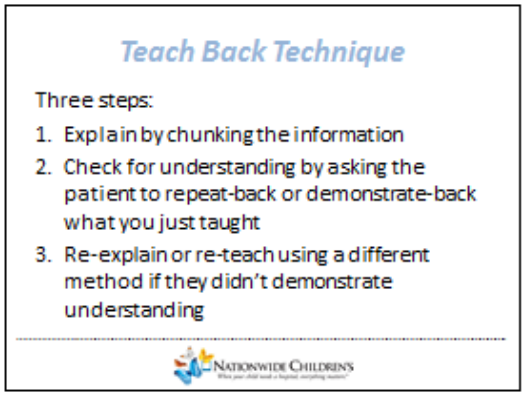

Think about the Language We Use
Avoid Stay Away From
Modify Change
Fracture Broken Bone
Negative "Good" or "Bad" Results
Nationwide Children's

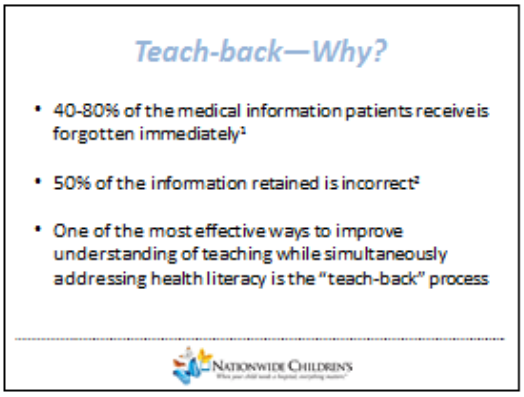

So, how should we communicate?
To communicate more effectively:
1. Slow down
2. Use living room language
3. Show or draw pictures
4. Chunk and repeat the information
5. Use teach-back or show-me
6. Create a shame-free environment
Nationwide Children's

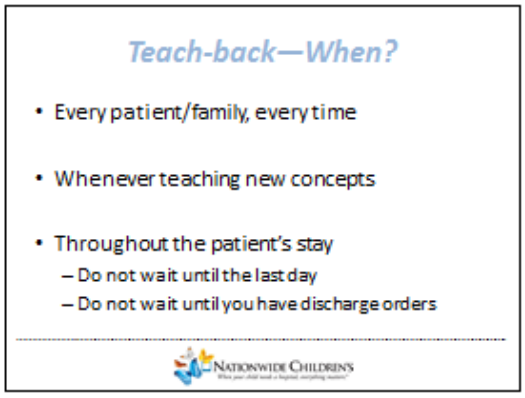

Adopt a 'universal precautions' approach
• Everyone benefits from clear information
• Many parents and patients are at risk of misunderstanding, but they are hard to identify – "You can't tell by looking"
• Confirm understanding with everyone
Nationwide Children's

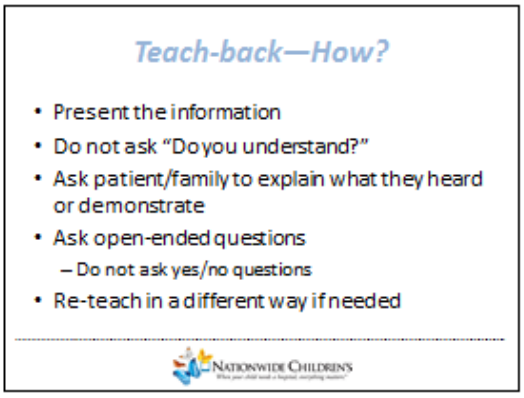

Adopt a 'universal precautions' approach
• The stress and anxiety of hospitalization itself, exacerbates communication challenges between providers and recipients of health care
• Hospitalization of a child has non-physiologic effects on a parents well-being stirring up intense emotions of concern, anxiety, insecurity, guilt, fear and grief
Nationwide Children's


Teach Back Technique
Nationwide Children's


Teach Back Technique
Three steps:
1. Explain by chunking the information
2. Check for understanding by asking the patient to repeat-back or demonstrate-back what you just taught
3. Re-explain or re-teach using a different method if they didn't demonstrate understanding
Nationwide Children's


Teach-back—Why?
• 40-80% of the medical information patients receive is forgotten immediately[1]
• 50% of the information retained is incorrect[2]
• One of the most effective ways to improve understanding of teaching while simultaneously addressing health literacy is the "teach-back" process
Nationwide Children's


Teach-back—When?
• Every patient/family, every time
• Whenever teaching new concepts
• Throughout the patient's stay
– Do not wait until the last day
– Do not wait until you have discharge orders
Nationwide Children's


Teach-back—How?
• Present the information
• Do not ask "Do you understand?"
• Ask patient/family to explain what they heard or demonstrate
• Ask open-ended questions
– Do not ask yes/no questions
• Re-teach in a different way if needed
Nationwide Children's

Teach-back—How?

- Mentally rehearse:
  - What is the most important thing I want to be sure the parent/patient understands?
  - How would I ask this question?
- After each interaction, ask open-ended questions to elicit understanding

Nationwide Children's

Examples of Statements

"I want to make sure I explained this correctly.....Can you tell me in your own words things you will look for that would be important for you to call the doctor?"

Nationwide Children's

Examples of Statements

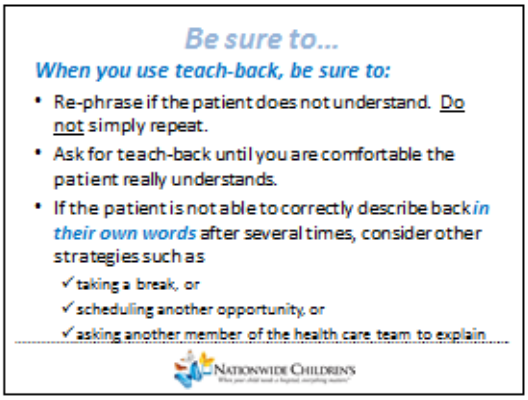
"I want to make sure I did a good job of showing you how to do this....Can you show me how you will do this dressing change at home?"

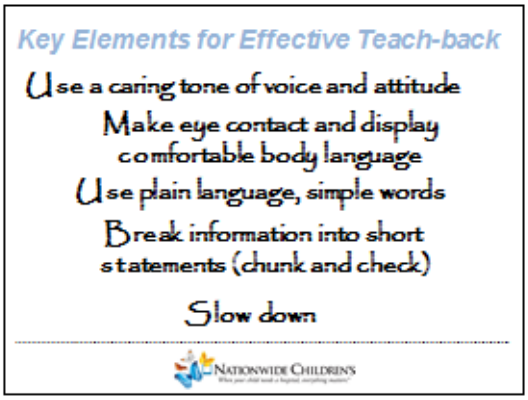
Nationwide Children's

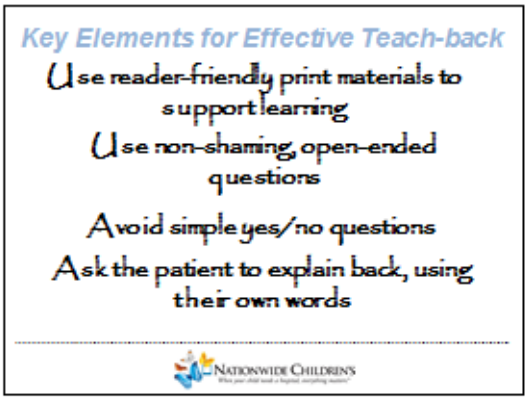
Examples of Statements

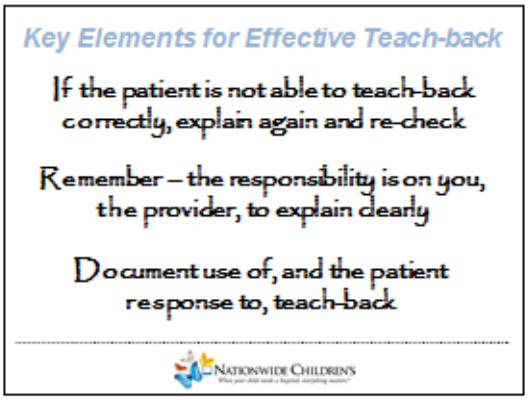
"I teach this a lot and sometimes I leave information out without realizing it. Can you tell me in your words, what we just talked about so I am sure that I did a good job teaching you?"

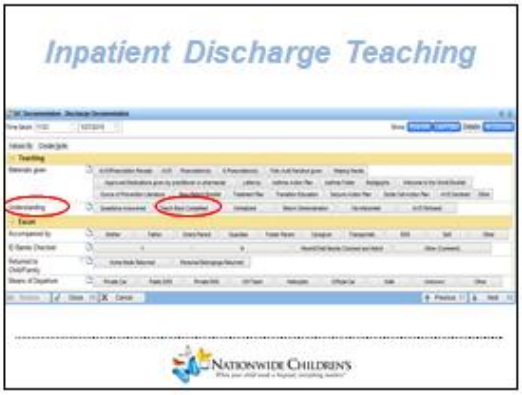
Nationwide Children's


Be sure to...
When you use teach-back, be sure to:
• Re-phrase if the patient does not understand. Do not simply repeat.
• Ask for teach-back until you are comfortable the patient really understands.
• If the patient is not able to correctly describe back in their own words after several times, consider other strategies such as
✓taking a break, or
✓scheduling another opportunity, or
✓asking another member of the health care team to explain
Nationwide Children's


Key Elements for Effective Teach-back
Use a caring tone of voice and attitude
Make eye contact and display comfortable body language
Use plain language, simple words
Break information into short statements (chunk and check)
Slow down
Nationwide Children's


Key Elements for Effective Teach-back
Use reader-friendly print materials to support learning
Use non-shaming, open-ended questions
Avoid simple yes/no questions
Ask the patient to explain back, using their own words
Nationwide Children's


Key Elements for Effective Teach-back
If the patient is not able to teach-back correctly, explain again and re-check
Remember – the responsibility is on you, the provider, to explain clearly
Document use of, and the patient response to, teach-back
Nationwide Children's


Inpatient Discharge Teaching


An example of Teach Back
Improving communication
Employ teach-back method

Appendix E

Continuing Education Evaluation Tool, November 14, 2014

NATIONWIDE CHILDREN'S HOSPITAL
Columbus, Ohio

CONTINUING EDUCATION EVALUATION TOOL

TOPIC: Hello, are you talking to me? Techniques for Effective Health Care Communication

DATE: November 14th, 2014

PARTICIPANT STATUS: (CHECK ONE)

47	**RN**	____	SOCIAL WORK	____	CHILD LIFE
____	LPN	____	COUNSELOR	____	PHARMACY
____	RESPIRATORY THERAPY	____	PASTORAL CARE		
____	OCCUPATIONAL THERAPY	____	PHYSICAL THERAPY		
____	OTHER (Please specify) ____				

OBJECTIVES	MET OBJECTIVES	DID NOT MEET OBJECTIVES
• Define health literacy, prevalence, and challenges for the health illiterate person	**45**	
• Describe effective patient communication and how they are related to the Teach-Back technique	**45**	
• Apply effective use of Teach-Back technique	**45**	

Presenter: Janet Berry

Teaching Effectiveness	**Excellent**	**44**	**Good**	**3**	Fair		Poor
Knowledge of Subject	**Excellent**	**43**	**Good**	**4**	Fair		Poor

How will this educational activity change/improve your practice?

- Teaching at parent level
- I will institute the "teach back" method in my discharge teaching.
- Made me more aware of teaching techniques and what the learner actually retains correctly.
- Focus on presenting new information in small chunks.
- The concept of health literacy, I will be more aware of the language I use when talking with families.
- More awareness on this and self-reflection of my practice.
- Gave me tools to communicate better with families.
- Help out staff understand the importance of teaching throughout and in small chunks.
- Was not aware of the number of people that are health illiterate. More effective teaching to families.
- Use ideas in new hire education when talking about patient education concepts.
- Be more aware of the education level of the family/patent and adjust teaching.
- More careful teaching.
- Will use the scenarios.
- I will continue to work with my staff on the "teach back". It is important.
- More awareness to take a step back to consciously think of wording before I speak.
- Already incorporated Teach Back into unit expectations. Complete audits for compliance. Handed out bade buddies.
- Support them on my unit. No family rounds on C5A because of the population. Trying to get nurses involved with rounds/crisis team by attending their meeting at 11 am every day.
- Make me more aware of how I can be perceived in my teaching.
- Stats were crazy! I won't be so quick to assume patients/parents understand me when I explain things I know.
- Continue to look and listen to my home going teaching and continue to evaluate each time I teach. Remember to ask questions as they repeat information. Follow up phone calls help with some of this assessment.
- Will help ensure teachings are effect.
- Roll out: mandatory for all RNs. Chex Module: Content. Live Scenario-practice.
- Be more aware of the need to not assume knowledge.
- Maybe should be incorporated into LAUNCH?
- Very interesting.
- Reinforce with staff the importance of teach back method prior to discharge and include it on annual competency education day.

What topics would you like to see offered in the future?

- Have examples of how to stream line teach back at discharge.

COMMENTS:

- Mandatory for all RN's. CHEX module per education.
- The majority of references were older than 5 years old, would like to see more up to date references and resources.
- Emphasize using research based adult learning methods to promote parent/care taker learning and retention, for example, use a multi-sensory approach, help them relate the new knowledge to something they already know.
- I think this information needs to be presented live. It is very impactful and the role playing is effective. It will also give staff the opportunity to ask questions.

- Great presentation, really liked the role play/demo.
- More options on Get Well Network Edutainment. More journey boards, great way to track caregiver learning.
- Have examples of how teach back saves time in the long run. This information helps all the concept and skill of teach back.
- Please realize that if the nurse is rushed in teaching, the parent will feel that. Teach time must be factored into nursing ratio.
- You did a great job presenting such an important message.
- Great presentation.
- I really believe this is a safety goal. I like the example and props/role playing. Should be rolled out to all clinical staff.
- Physician buy in important, in outpatient clinics, RNs do not discharge or see every patient. Mandatory – RN, MD, PA, APN, etc.
- A good reminder of our family's level of health literacy, very informative.
- Barrier: consistency among RNs teaching the same thing. Offer many live sessions.
- Roll out: mandatory training for staff, should be a live presentation with the information given today (statistics) so staff understand the importance.
- Add teaching to welcome letter. Add teaching to report sheet. I think giving information about health care understanding is so vital for the nurse to know.
- Great job!
- Loved this! Very important.
- Teaching needs at 7 at 7 reports.
- For the staffing indicators, I think discharge teaching should be considered. Many times all the discharge teaching Is left to the end and the assignment isn't conducive to teaching. It is often rushed.
- Great for staff! Mandatory for all staff RNs.
- Like the exercises and discussion.
- Good coverage of teaching obstacles.
- Love the Care Journeys. Incorporate discharge goals on white boards in patient room. Believe in "See one, Do one, teach one".
- Adding teach back as response in EPIC. Good topic, but I worry that the timing may be an issue. Not sure if this is needed as formal presentation but maybe require managers and leadership team or even parent advisory to present. The more relevant scenarios to share, the better.
- Can after visit summary be presented in other languages? Like it presented rather than train the trainer.
- Great information, will change practice.
- Barriers to effective teaching need to be addressed for staff to hear this great message! No CHEX. Train the trainer is tough live by same group of teacher is best for consistent education.
- Even relevant concepts when teaching new staff.
- Staffing grid sort of has us seeing current to be discharged patients as not really there. Leaving little time to get this teaching done. Ex: "Oh Sue has four patients but one is going home".

Appendix F

Continuing Education Evaluation Tool, Unit 1

NATIONWIDE CHILDREN'S HOSPITAL
Columbus, Ohio

CONTINUING EDUCATION EVALUATION TOOL

TOPIC: Hello, are you talking to me? Techniques for Effective Health Care Communication

DATE: January 27, 2015 through February 6, 2015

PARTICIPANT STATUS: (CHECK ONE)

34	RN	_____	SOCIAL WORK	_____	CHILD LIFE
2	LPN	_____	COUNSELOR	_____	PHARMACY
_____	RESPIRATORY THERAPY	_____	PASTORAL CARE		
_____	OCCUPATIONAL THERAPY	_____	PHYSICAL THERAPY		
5	OTHER (Please specify)	**2-Student Nurses; 3-PCA's**			

***Following is based on RN feedback only on C5B**

OBJECTIVES	MET OBJECTIVES	DID NOT MEET OBJECTIVES
• Define health literacy, prevalence, and challenges for the health illiterate person	**34**	
• Describe effective patient communication and how they are related to the Teach-Back technique	**34**	
• Apply effective use of Teach-Back technique	**34**	

Presenter: Janet Berry

Teaching Effectiveness	Excellent	**33**	Good	**1**	Fair		Poor
Knowledge of Subject	Excellent	**34**	Good		Fair		Poor

PERSONAL GOALS:

34 Personal goals met _____ Personal goals not met

How will this educational activity change/improve your practice?

- Improve how I teach patients and parents (especially discharge instructions)
- Teach back would be crucial in practice. Return demonstration is very important
- It will help me be able to do better at educating my patients
- Try to do discharge teaching prior to discharge in small "chunks" in day prior to discharge or early in day so not overloaded at discharge time
- Very beneficial…this will assist me in allowing my patients and their families to be discharged with more confidence
- Discharge teaching
- Using simple language when teaching, discharging
- Teach back by asking open ended questions. Create shame free environment. Assess health literacy.

- Help me ensure that parents are actually understanding the information that I am teaching them and that they are able to carry out the skill I teach them
- Clear education. Slow down. Chunking education with teach back
- Take your time and do one section at a time (chunking). Use plain and simple words. Help me to ask questions (open ended) ask for them to verbal repeat and or physical demonstrate so that I know they actually understand. Recheck for understanding. Document!
- Slow down and take more time to reassess
- DC patient in a better way
- Learned that many people are 'ashamed' of their literacy level and will not ask for help. Importance of thoroughly teaching families and identify cues that the family does not understand education
- Help to ensure patients are receiving the instruction/information needed to maintain health
- Will help to use some of the techniques I learned to teach my patients
- Learned a lot of literacy and teach back method. Very informative information
- The statistics/demographics were helpful
- Improving the education we provide to our patients/families
- To continue to better communicate with patients and their families in a way that results in their satisfaction and promotes confidence to better take care of self/the child
- This presentation will make me think about how I do my discharges
- Make me more aware of how I teach and explain things to families
- Incorporate teach back techniques
- Make me think about how I verbalize 'positive' and 'negative' results to patients/families
- It makes me more aware of the importance of taking the time to make sure that my pts are well educated before discharge
- I will be more aware of health literacy and not to assume my parents understand everything they are told. Will be using teach back technique discussed. Thanks!
- Spend more time teaching back
- Helps with teaching our patients

COMMENTS:

- It would be nice if it was offered at different times. Before/after 7a-7p shifts. It's difficult to heave the unit for an hour☺
- Enjoyed the class. Helpful information on teaching families.
- Role playing to practice was helpful!
- Great and very informative presentation!
- Very good info to use!

Appendix G

Continuing Education Evaluation Tool, Unit 2

NATIONWIDE CHILDREN'S HOSPITAL
Columbus, Ohio

CONTINUING EDUCATION EVALUATION TOOL

TOPIC: Hello, are you talking to me? Techniques for Effective Health Care Communication

DATE: January 27, 2015 through February 6, 2015

PARTICIPANT STATUS: (CHECK ONE)

22	RN	_____	SOCIAL WORK	_____	CHILD LIFE
_____	LPN	_____	COUNSELOR	_____	PHARMACY
_____	RESPIRATORY THERAPY	_____	PASTORAL CARE		
_____	OCCUPATIONAL THERAPY	_____	PHYSICAL THERAPY		
_____	OTHER (Please specify)				

***Following is based on RN feedback only on H10B**

OBJECTIVES	MET OBJECTIVES	DID NOT MEET OBJECTIVES
• Define health literacy, prevalence, and challenges for the health illiterate person	**22**	
• Describe effective patient communication and how they are related to the Teach-Back technique	**22**	
• Apply effective use of Teach-Back technique	**22**	

Presenter: Janet Berry

Teaching Effectiveness	Excellent	**22**	Good	Fair	Poor
Knowledge of Subject	Excellent	**22**	Good	Fair	Poor

PERSONAL GOALS:

22 Personal goals met _____ Personal goals not met

How will this educational activity change/improve your practice?

- Very informative, will use methods of teach back suggested
- This gave me ideas on how to effectively do teach back
- Will not assume based on education level parents fully understand. Will have parents verbalize learning
- I understand better how to do teach back now!
- I will think more about the language I use
- I will be cautious in choosing my words when communicating with patients and families
- With teaching/discharge/changes in care – give simple teach back; understanding of variety of patients/families; simple statements/chunking
- Will use a little different statements when teaching
- Gave me phrases to use when applying the teach back method
- Understanding the family perspective more
- Allow myself to know if I explained instructions clearly to the patient and family member

- Using teach back method is a great tool to make sure patients/family understand the important information given
- Simplify
- I will definitely slow down when teaching and break up my information
- Very good examples of how to approach teach back in a non-judgemental way; also great reminders on words of choice
- All is helpful – nice way to "frame" teach back

COMMENTS:

- Information was eye opening
- Informative
- Great presentation; very helpful and made me think more about teaching
- Great!

Appendix H

Participant Suggestions and Concerns

1. After Visit Summary (AVS) forms:
    - "There is a standard note at the end of the form that says "take your child to the ED or bring them to the doctor if they turn purple". This should not be there. I tell parents "blue is bad" and call 911."
    - "There needs to be room on the AVS to write the time of the last dose given and the time the next dose is due for meds."
    - "The AVS and all prescriptions are written in English, regardless of the native language of the patient/family. We need to be able to print this in Spanish at least. Challenge is that when printed in another language the nurse can then not read it."
    - "The AVS is not written in simple language and contains medical terminology."

2. Non-English speaking patients/families
    - "The younger Somali interpreters' don't know their own language well enough to be an interpreter. They were born and raised in the U.S. and don't know Somali the way immigrants speak it (Comment from a Somali RN)"
    - "Plus many Somali can speak their language but not read it so AVS/Helping Hands are not useful for them."
    - "More of our helping hands need translated into foreign languages."
    - "We should offer more education to our staff on the cultural differences of patients/families i.e., Somali ;possibly get cultural nurse groups together for suggestions. Some things we teach certain cultures will never follow so we need to be creative."
    - "Challenge to have interpreter available for all educational needs throughout the stay as opposed to one lump content i.e. upon discharge or admission."
    - "We need to encourage the use of the i-pad interpreters."
    - "Some interpreters are quite difficult to contact i.e. Fulani and Napali."
    - "Please present this program to our interpreters so they can help us use teach-back when they are interpreting our instructions for parents."

3. Patient Edutainment welcome video:
    - "The 'welcome to NCH video' is great, but parents don't watch it when they get admitted in the middle of the night and you cannot skip over them. All they want to do is plug in a video and get their child settled down. There needs to be an option for the parent to replay the welcome video later during the day of

admission. The RN should now have to go in and reprogram this is the edutainment system."

- "We should create Edutainment videos for basic instructions like giving oral medications with a syringe and we should do this in their native language."

4. Welcome packets:
    - "Our parents get a welcome packet on every unit they transfer to and at every admission. The packets all have the same information in them. One parent showed me 5 packets they had collected on the same admission. They should get one packet at admission, and then each unit can just provide them unit specific information when they transfer."

5. Aids for parents:
    - "Does pharmacy give parents syringes with their oral medications? We should do that and we should mark the syringe with tape at the level of their child's dose."
    - "Are medication labels printed in patients language or only in English?"
    - "Does Pharmacy use interpreters when teaching families about medications?"
    - "Unit 2 is teaching injections to parents using oranges. We should use anatomic body parts for teaching parents."
    - "Unit 1 instructs their families to start 'bleach baths' once the skin is fully healed. This is usually a few weeks after discharge. We instruct them to use 'x' amount of bleach for gallon of water in the bathtub. We should give them a 5 gallon container, a measuring device, and bleach if we want them to do this correctly."

6. Miscellaneous:
    - "The physicians have started using 'conditional discharges' meaning, they tell the parent their child will be discharged today if they meet certain criteria. All the parents hear is that they are going home today. Once the child finally meets the conditions for discharge and we have the AVS, the parent is just ready to go and doesn't want to stay for any instructions. Nurse's wish physicians would not talk about conditional discharges. They physicians use conditional discharges to meet their goal of having all of their discharge orders in by 1200."
    - "The current parent ID bands fall apart when they become wet. We need a new type of ID band for parents."
    - "We would like to sit when teaching our parents, but with only 2 chairs per patient room, if the parents are in them, we don't have any options to sit."
    - "Nurses on Unit 1 have the perception they get many transfers from ED and PICU at change of shift, creating demands on the nurses, and patient safety concerns.

The nurse who brought this up would like to approach this as an evidence-based project. “

- “Some physicians are ordering “teaching” to be done on next unit or the transfer unit—the example for this was on Unit 1”
- “Does the Family Resource Center have any Teaching Kits?”